

DGS

(*DATA GATE SYSTEM*)

PK ERP
PUNGKOOK | VN

MANUAL

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1. Login to DGS

PK2 (public IP): <http://125.234.135.55:82/>

PK3 (public IP): <http://27.65.197.213:82/>

PKJoon (public IP) : <http://203.113.151.194:82/>

PKMT (public IP): <http://125.234.137.172:82/>

PKBT (public IP): <http://125.234.106.171:82/>

PKGB (public IP): <http://183.81.158.136:82/>

PKMM (public IP): <http://43.242.135.203:82/>

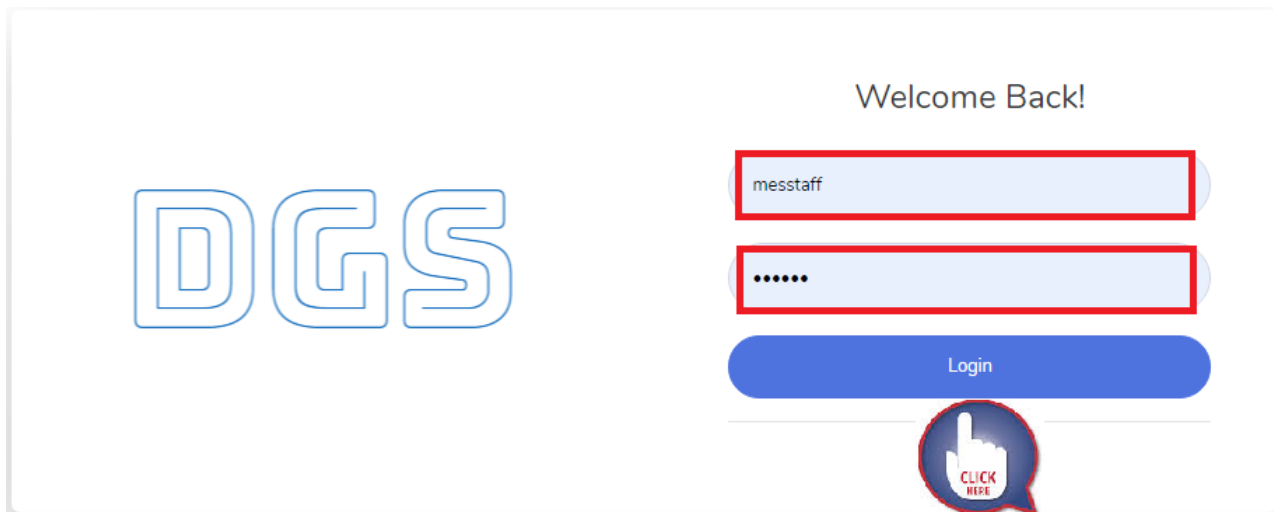
PKSB (public IP): <http://183.81.154.206:82/>

Input user: messtaff

Pass:123456

Click < Login button> to login

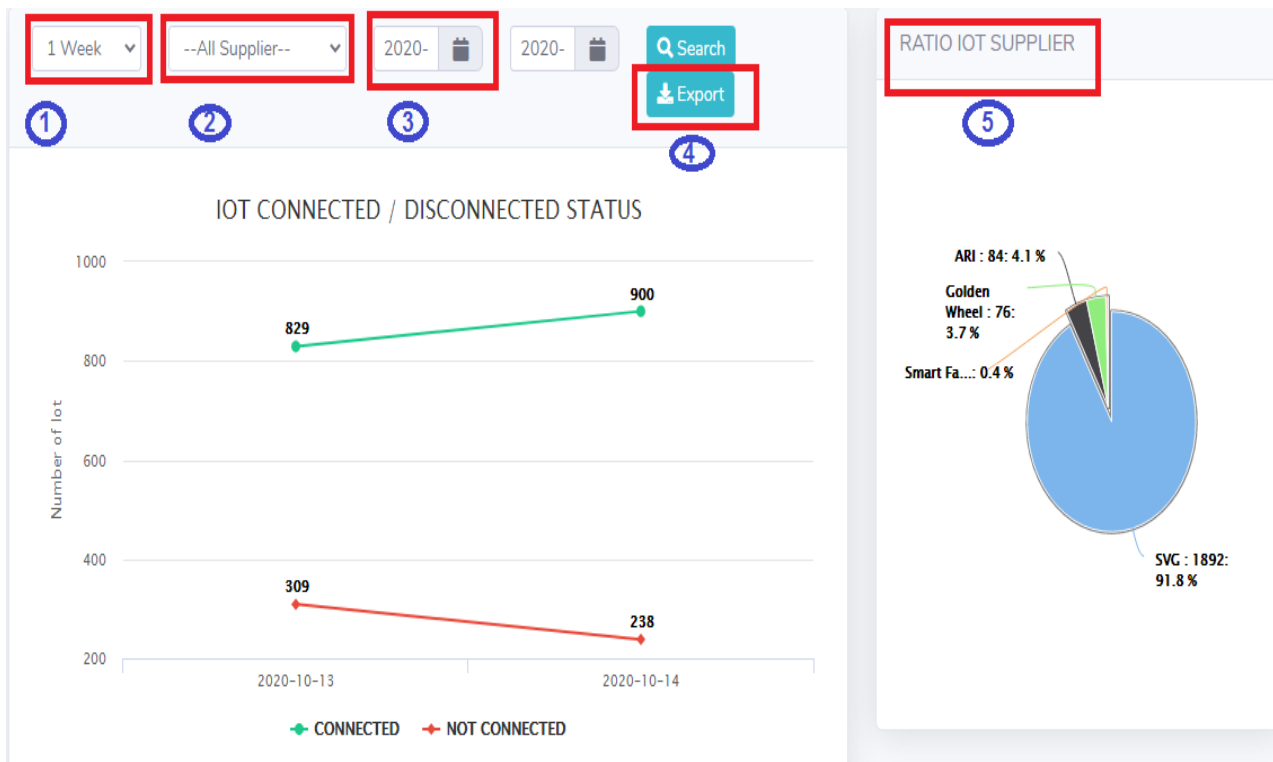
Using general user for login, if each factory need a private user you may send ID to ERP team for registering the right to login it.



2. Dash board

Description: Able to show up IOT connected / disconnected status by chart.

1. Selecting by week. The data is saved within 3 weeks
 2. Selecting a specific supplier to search
 3. Selecting the previous date or current date and then search it
 4. Exporting excel file to see data
 5. Ratio IOT is calculated as $\text{IOT supplier} / \text{sum of IOT} * 100\%$
- *Green color showing connected quantity and red color showing disconnected quantity.*



3. IOT Status

Description: Able to display IOT status. Those information is connected with IOT using network.

1. Selecting by week. The data is saved within 3 weeks
2. It could be searched information as Mac address, Machine ID, Factory, Line.

2 W€

BC:DD:C2:5D:19:86

Total

1

On

0

#	Mac Address	Machine Id
1	BC:DD:C2:5D:19:86	M10007786

3. Selecting which supplier need to search

2 Wi ARI

Total 46 On 21 Off 25

#	Mac Address	Machine Id	Factory	Line	lot Supplier
35	84:F3:EB:B2:29:64				ARI

4. Selecting ON or OFF to know quantity and status

ARI ON

22 On 22 Off 0

Mac Address	Machine Id	Factory	Line	lot Supplier	lot Model	lot Version	Status
C:4F:22:7E:5D:D2				ARI	ARIS	A003-0005	ON

5. Selecting which error code to search

SVG --Status-- No Machine Id

280 On 137 Off 143

Mac Address	Machine Id	Factory	Line	lot Supplier	lot Model	lot Version	Status	
5C:CF:7F:B9:C9:CF		FAC-C	LINE11	SVG	000C	000C-0057	ON	2020-10-15 10:29:24

6. Export excel file

2 Wi

Enter key to search...

--Supplier--

--Status--

--Error Code--

Search

Export

1

2

3

4

5

6

Total1272

On718

Off554

#	Mac Address	Machine Id	Factory	Line	lot Supplier	lot Model	lot Version	Status	Time On/Off	Mes Plan	Worker	Last Teaching
1	BC:DD:C2:5D:17:F4	M10008973	FAC-C	LINE11	SVG	000B	00NB-0047	ON	2020-10-15 09:32:13	No Plan	No Id	2020-10-15 09:32:15
2	4C:11:AE:0E:40:2A				SVG	000B	00NB-0047	ON	2020-10-15 09:32:05	No Plan	No Id	No Teaching
3	3C:71:BF:3A:D0:F6				SVG	000B	00NB-0047	ON	2020-10-15 09:32:00	No Plan	No Id	2020-10-15 09:32:02
4	3C:71:BF:2B:36:77	M10001655			SVG	000B	00NB-0047	ON	2020-10-15 09:31:50	No Plan	No Id	2020-10-15 09:31:53
5	BC:DD:C2:5D:18:71	M10009616	FAC-C	LINE07	SVG	000B	00NB-0047	ON	2020-10-15 09:31:49	No Plan	No Id	2020-10-15 09:31:51

4. Sewing machine

4.1 Sewing counter

Description: Able to display counter, cycle time, Exc time sent data to server.

1. It could be searched by Mac address, Machine ID to see counter, cycle time.

BC:DD:C2:5D:14:FE

2020-10-15

Search

Seq	Mac Address	Machine Id	Process Id	Type	Counter	Cycle Time(s)	Sum cycle(s)	Exc Time
47694456	BC:DD:C2:5D:14:FE	M10023475	1-1	OUTPUT	394	6	13887	2020-10-15 12:36:19

M10023475

2020-10-15

Search

<

2. Selecting current date or tracking history of previous days to see data

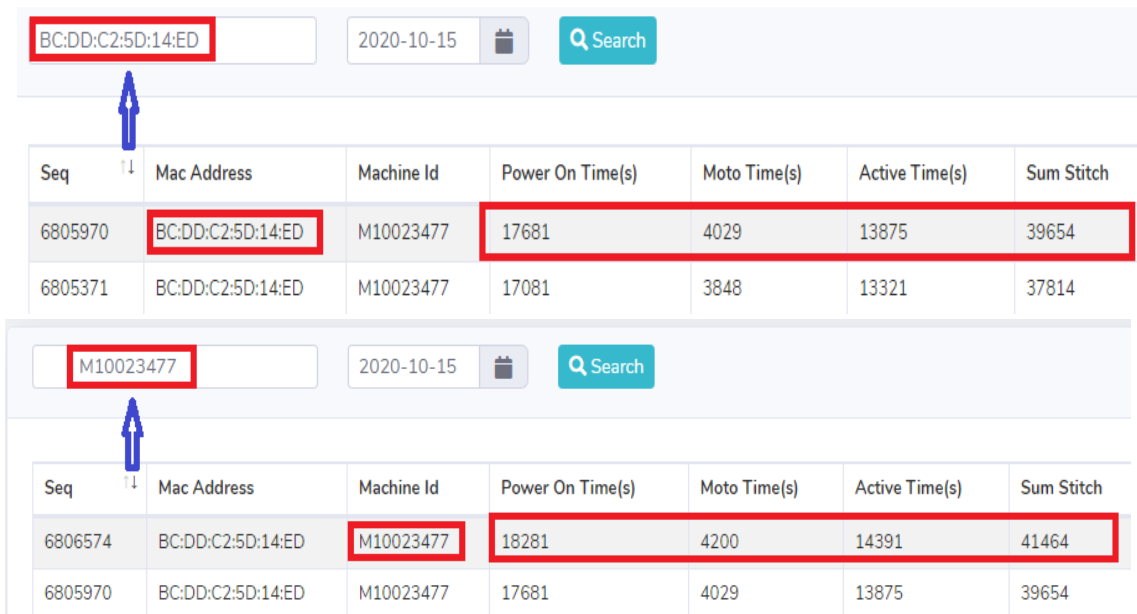
<input type="text" value="Enter key to search..."/>	<input type="text" value="2020-10-15"/>		<input type="button" value="Search"/>
---	---	--	---------------------------------------

Seq	Mac Address	Machine Id	Process Id	Type	Counter	Cycle Time(s)	Sum cycle(s)	Exc Time
47672711	3C:71:BF:3A:D0:F2	M10007509	1-1	OUTPUT	174	14	9938	2020-10-15 10:48:26
47672710	EC:FA:BC:58:82:8B	M10004911	1-1	OUTPUT	1871	6	10851	2020-10-15 10:48:24
47672709	84:F3:EB:0C:A0:12		1-1	OUTPUT	9474	1	5945	2020-10-15 10:42:41
47672708	CC:50:E3:49:EC:61		1-1	OUTPUT	131	56	11630	2020-10-15 10:47:57
47672707	84:F3:EB:0C:1B:0E	M10008295	1-1	OUTPUT	3527	1	11543	2020-10-15 10:48:20
47672706	BC:DD:C2:5D:16:6A	M10006800	1-1	OUTPUT	109	137	11096	2020-10-15 10:48:24
47672705	CC:50:E3:0F:1B:26	M10007893	1-1	OUTPUT	694	33	5443	2020-10-15 10:48:18
47672704	3C:71:BF:2B:35:53	M10001746	1-1	OUTPUT	153	57	10923	2020-10-15 10:48:25
47672703	BC:DD:C2:5D:1A:8B	M10038399	1-1	OUTPUT	90	109	11710	2020-10-15 10:48:24
47672702	BC:DD:C2:5D:14:0B	M10008691	1-1	OUTPUT	4517	2	11862	2020-10-15 10:40:29
47672701	EC:FA:BC:58:83:A5		1-1	OUTPUT	265	23	10461	2020-10-15 10:48:24
47672700	CC:50:E3:4B:C8:E3	M10002706	1-1	OUTPUT	3365	2	11153	2020-10-15 10:44:17

4.2 Machine Time

Description: Able to display Power time, Motor time, Active time, Sum of stitch, Exc date sent data to server.

1. It could be searched by Mac address, Machine ID to see Power on time, Motor time, Active time, sum of stitch



Search 1: Mac Address: BC:DD:C2:5D:14:ED, Date: 2020-10-15

Seq	Mac Address	Machine Id	Power On Time(s)	Moto Time(s)	Active Time(s)	Sum Stitch
6805970	BC:DD:C2:5D:14:ED	M10023477	17681	4029	13875	39654
6805371	BC:DD:C2:5D:14:ED	M10023477	17081	3848	13321	37814

Search 2: Machine Id: M10023477, Date: 2020-10-15

Seq	Mac Address	Machine Id	Power On Time(s)	Moto Time(s)	Active Time(s)	Sum Stitch
6806574	BC:DD:C2:5D:14:ED	M10023477	18281	4200	14391	41464
6805970	BC:DD:C2:5D:14:ED	M10023477	17681	4029	13875	39654

2. Selecting current date or tracking history of previous days to see data

- **Power on time:** It is calculated time when machine turned on
- **Motor time:** It is calculated time of operated motor
- **Active time:** It is real working time , including motor runtime and handling time.
- **Sum stitch:** It is calculated stitch total of IOT

<div> <input type="text" value="Enter key to search..."/> <input type="text" value="2020-10-15"/> <input type="button" value="Search"/> </div>							
Seq	Mac Address	Machine Id	Power On Time(s)	Moto Time(s)	Active Time(s)	Sum Stitch	Exc Date
6803603	BC:DD:C2:5D:1A:33	M10087408	14992	1770	6560	15948	2020-10-15 12:56:50
6803602	3C:71:BF:2A:00:4D	M10008676	20770	2978	9566	14519	2020-10-15 12:56:46
6803601	3C:71:BF:3A:D9:8F		15717	3804	12194	38286	2020-10-15 12:56:45
6803600	84:F3:EB:B2:25:72	M10038614	16137	4351	13552	31888	2020-10-15 12:56:40
6803599	3C:71:BF:2B:36:3F		14908	4025	11812	215002	2020-10-15 12:56:38
6803598	EC:FA:BC:58:84:A6	M10087768	15294	2402	10384	23033	2020-10-15 12:56:36
6803597	BC:DD:C2:5D:19:1B	M10087229	16789	2713	11675	13424	2020-10-15 12:56:35
6803596	BC:DD:C2:5D:19:5D	M10008759	15545	3337	8769	56673	2020-10-15 12:56:30
6803595	EC:FA:BC:58:84:B2		14058	4652	10310	62474	2020-10-15 12:56:32
6803594	DC:4F:22:75:DB:A5	M10089406	14982	3025	13321	40266	2020-10-15 12:56:31
6803593	EC:FA:BC:58:81:EE	M10007669	15094	477	8288	2123	2020-10-15 12:56:14

4.3 Ari counter

Description: Able to display Ari data such as Work count, cycle time, working time, Preparing time, Running time, Avg stitch, Exc time.

1. It could be searched by Mac address to see Work count, cycle time, working time, Preparing time, Running time, Avg stitch, Exc time.

<div> <input type="text" value="84:F3:EB:B2:2A:2B"/> <input type="text" value="2020-10-15"/> <input type="button" value="Search"/> <input type="button" value="Export Excel"/> </div>															
Seq	Mac Address	Machine No	Machine Map	Module Type	Machine Type	Pattern No	Work Count	Cycle Time	Working Time	Preparing Time(s)	Running Time(s)	Avg Stitch	Total Stitch	Exc Time	
1032844	84:F3:EB:B2:2A:2B	-		ARL_SM	ARL_SEWING		97	14.5	00:23:24	00:17:02	00:06:21	34	0	2020-10-15	14:15:5

2. Selecting current date or tracking history of previous days to see data

- **Working time/ Active time:** It is calculated time when worker start working
- **Preparing time/(Handle time):** It is calculated time prepare material
- **Running time/ motor time:** It is calculated time of operated motor

3. Export excel file to see data

<div> <input type="text" value="Enter key to search..."/> <input type="text" value="2020-10-15"/> <input type="button" value="Search"/> <input type="button" value="Export Excel"/> </div>														
1	2	3												
Seq	Mac Address	Machine No	Machine Map	Module Type	Machine Type	Pattern No	Work Count	Cycle Time	Working Time	Preparing Time(s)	Running Time(s)	Avg Stitch	Total Stitch	Exc Time
1032806	84:F3:EB:B2:2A:2B	-		ARLSM	ARLSEWING		92	15.2	00:23:24	00:17:02	00:06:21	34	0	2020-10-14:10:14:10
1032805	84:F3:EB:B2:27:43		M10004655	ARLSM	ARLSEWING		778	14	03:01:28	01:55:12	01:06:16	55	0	2020-10-14:10:14:10
1032804	84:F3:EB:B2:2A:25		M10038466	ARLSM	ARLSEWING		842	0	0	0	0	57	0	2020-10-14:10:14:10
1032803	84:F3:EB:B2:2A:5B	-	M10004573	ARLSM	ARLSEWING		879	16.3	03:58:13	02:32:24	01:25:48	83	0	2020-10-14:10:14:10
1032802	84:F3:EB:B2:29:5B			ARLSM	ARLSEWING		1321	13.5	04:57:45	03:49:58	01:07:46	24	0	2020-10-14:10:14:10
1032801	38:2B:78:04:5E:7D	-		ARLSM	ARLSEWING		1299	14.5	05:13:15	03:05:16	02:07:58	80	0	2020-10-14:10:14:10

5. Non-sewing config

5.1 Warehouse Data : Not yet usage

5.2 Scale machine

Description: Able to display Scale IOT data such as Package code (Barcode No), Weight sample, Passed/failed quantity & status, output, date time.

1. Choosing current date or tracking history of previous days to see data
2. Export excel file to see data

2020-10-15 Filter by Date Export Excel

1 2

Show 25 entries Search: Input text and press En

#	Plan Date	lot Mac Address	Package Code	Sample	Passed	Failed	Total	Action
1	2020-10-15	18:FE:34:9F:74:B0	NONE	2.44	115	129	244	History
5	2020-10-15	18:FE:34:9F:74:B0	845136080775	8.9	18	0	18	History

Showing 1 to 2 of 2 entries Scale Machine History X Next

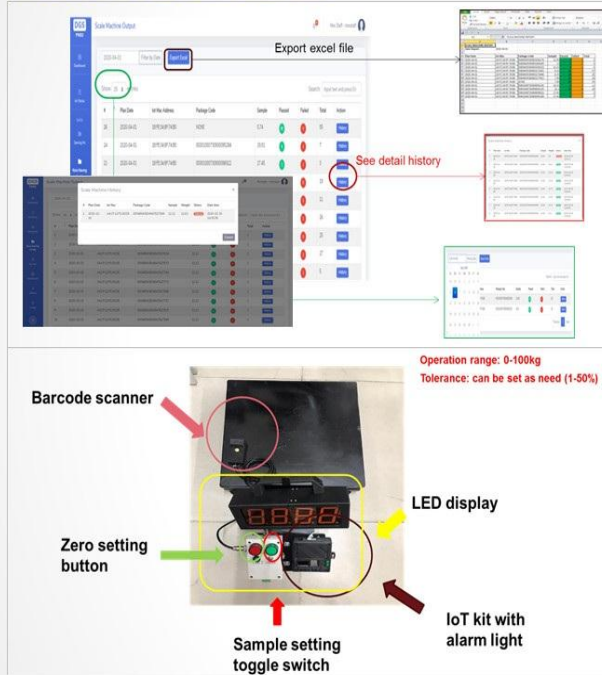
#	Plan Date	lot Mac	Package Code	Sample	Weight	Status	Date time
1	2020-10-15	18:FE:34:9F:74:B0	NONE	2.44	2.5	Passed	2020-10-15 13:17:48
2	2020-10-15	18:FE:34:9F:74:B0	NONE	2.44	2.6	Defected	2020-10-15 13:17:43
3	2020-10-15	18:FE:34:9F:74:B0	NONE	2.44	2.48	Passed	2020-10-15 13:17:36
4	2020-10-15	18:FE:34:9F:74:B0	NONE	2.44	2.59	Defected	2020-10-15 13:17:32
5	2020-10-15	18:FE:34:9F:74:B0	NONE	2.44	2.48	Passed	2020-10-15 13:17:28
6	2020-10-15	18:FE:34:9F:74:B0	NONE	2.44	2.46	Passed	2020-10-15 13:17:24
7	2020-10-15	18:FE:34:9F:74:B0	NONE	2.44	2.46	Passed	2020-10-15 13:17:21

➤ Illustration:

The worker collect the carton box and put it into the weight pan for weighting, If blue light is passed, red light is failed, Using barcode scanner to check the package code. Then data will be sent to DGS server.

MANUFACTURING INNOVATION : DIGITALIZATION

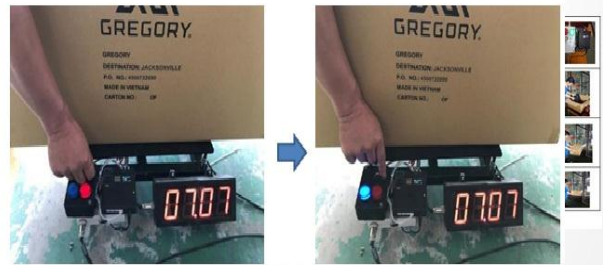
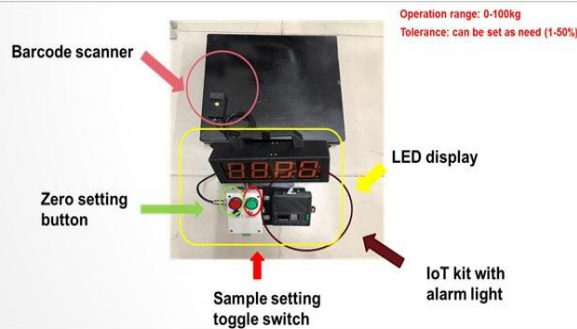
AUTO WEIGH SCALE



Benefits

- (1) Monitoring Output - Productivity
 - Time, output history, package code, weight check history will be show on DGS to easy managing
 - Manager possible to check & monitoring in DGS
- (2) Human resource wastage
 - Report data by export excel file instead of paper report
 - It can be checked history data

Operation



WORLD BEST



5.3 Dry machine

- It possible set value, speed of conveyor sent it to DGS and contrary DGS send it to machine in order to correct sample.

Pv1 & Pv2 : Process value 1 & process value 2

Sv1 & Sv2: set value & set value 2



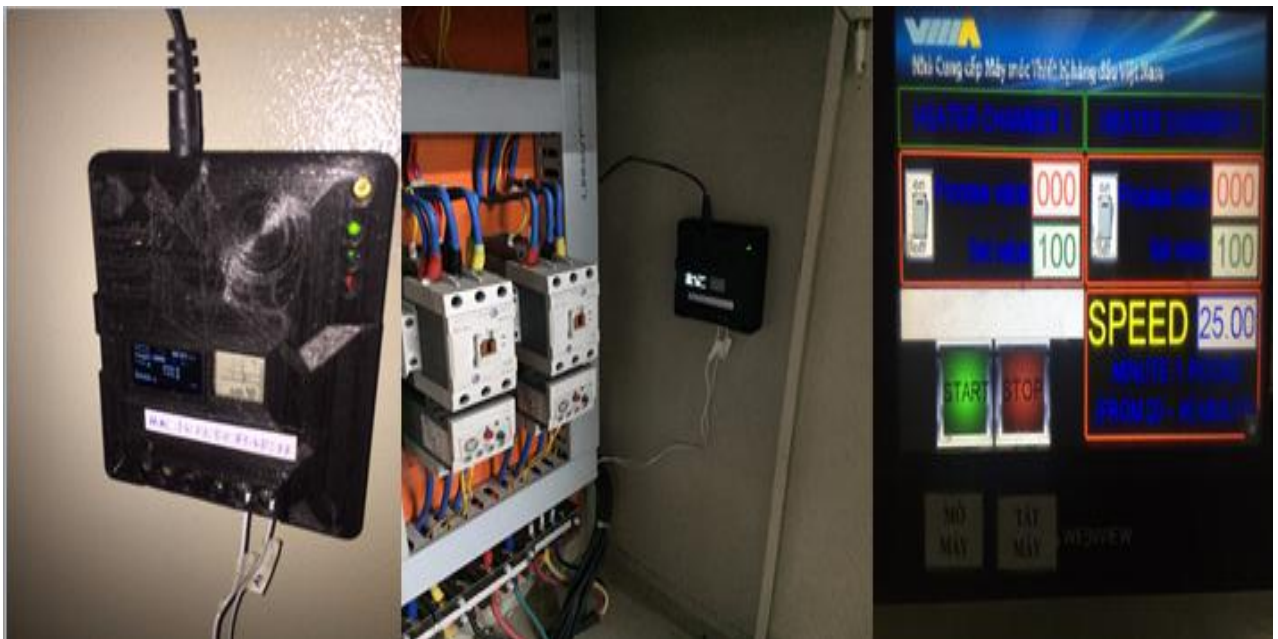
Mac Address	Machine Id	Factory	Line	lot Supplier	lot Model	lot Version	Status	Time On/Off	PV1	SV1	PV2	SV2	Speed	#
84:F3:EB:B3:4F:77				Smart Factory Team	00DR	MBDR-0001	ON	2020-10-16 07:00:11	0	100	0	100	45	Set Config

Showing 1 to 1 of 1 entries

Previous 1 Next

➤ Illustration:

Applied dry machine in KBT, using SFT IOT to send data to DGS



5.4 CT checking

Description: Able to display information such as Date, Factory, line, styles, Operation, Longest tack time, Line balance, Ave Cycle time.

1. It could be search information
2. Selecting current date or tracking history of previous days to see data

Enter key to search...

2020-01-15

Q Search

Date	Corporation	Factory	Line	Name	Total Operation	Longest Tack Time	LBR	#
2020-01-15	PKS2	FAC-A	Line A1.1	STRATO26	11	247.33333	46.66748	Detail
2020-01-15	PKS2	FAC-A	Line A1.1	STRATOS26	7	96	82.53968	Detail

Showing 1 to 2 of 2 entries

CT Checking detail

1Next

Date:2020-01-15

CorporationPKS2

FactoryFAC-A

LineLine A1.1

NameSTRATO26

Total Operation11

Longest Tack Time247.33333

LBR46.66748

No	Ave CT	CT1	CT2	CT3
1	83	88	90	71
2	247.33333	233	277	232
3	211	233	207	193
4	121.33333	117	112	135
5	70.33333	70	69	72

➤ Illustration:

Using App for checking Cycle time and send data to DGS. According to this result above . we can calculate line balance as:

$$LBR = \text{Sum of operation time} / (\text{Longest operation time} * \text{Total operation}) \times 100$$

CT CHECKING APPLICATION

CT CHECKING 1

CHECKING

CHECKING HISTORY

CONFIG

CT Report

Date: 2020-01-14

Corporation: PKS2 4

Factory: FAC-D

Line: Line A3

Name: STRATOS 34 ML

Total Operation: 1

Longest Tack Time(s): 2,33333

LBR (%): 100

No	Ave CT	CT1	CT2	CT3
1	2.33333	3	2	2

CT CHECKING HISTORY

Input Name to search 2 2020-01-14 FIND

Name: S

Name: 2020-01-14 Corporation: PKS2

Factory: FAC-D Line: Line A3

Name: STRATOS 34 ML

Name: 2020-01-14 Corporation: PKS2

Factory: FAC-D Line: Line A3

Processing

REPORT

No	Avg CT	Current CT	CT Times
0	0	0	0

Corporation: PKS2

Factory: FAC-D

Line: Line A3

Name: STRATOS 34 ML 3

+

START STOP

5.5 Heat Temperature: Not yet usage

6. Jig tool

Description: Able to mapping UID with Jig code information in order to download pattern from TPM using NFC (UID).

1. It could be searched by IUD, Jig code to see data mapping from TPM.

41:5A:D2:09

Search

Mapping

Synch TPM JIG

Download UID File

Upload UID File

Orig Uid	Uid	Jig Code ↑↓	Jig Name	Serial No	Machine Model	Style Name	Buyer Name
1096471049	41:5A:D2:09	T10028622	LLM URBAN NOMAD UNICORN	LLM URBAN NOMAD	UAS-H3020	LM9AFSS Urban Nomad	LULULEMON

2. Jig tool → Mapping → Mapping Jig & UID

Selecting which UID mapping with Jig ID, Then “save”

2

Mapping Jig and Nfc UID

NFC UID

02:B8:6:BFC

Jig Id

JIG-OSP-0013-Sirrus-front panel

Jig Name

JIG-OSP-0013-Sirrus-front panel

Machine Model

UAS-H3020

Style Name

Buyer Name

OSPREY

3. Jig tool → Synch TPM Jig

Click Synch TPM button to confirm “yes” for linking data of punching file from TPM, and see “synch data success”

Enter key to search... Search Mapping **Synch TPM JIG**

3

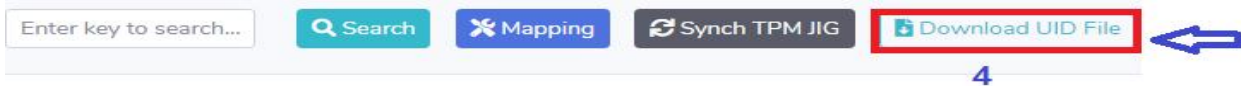
Synch TPM JIG Infomation ×

Do you want Synch Jig data from TPM ?

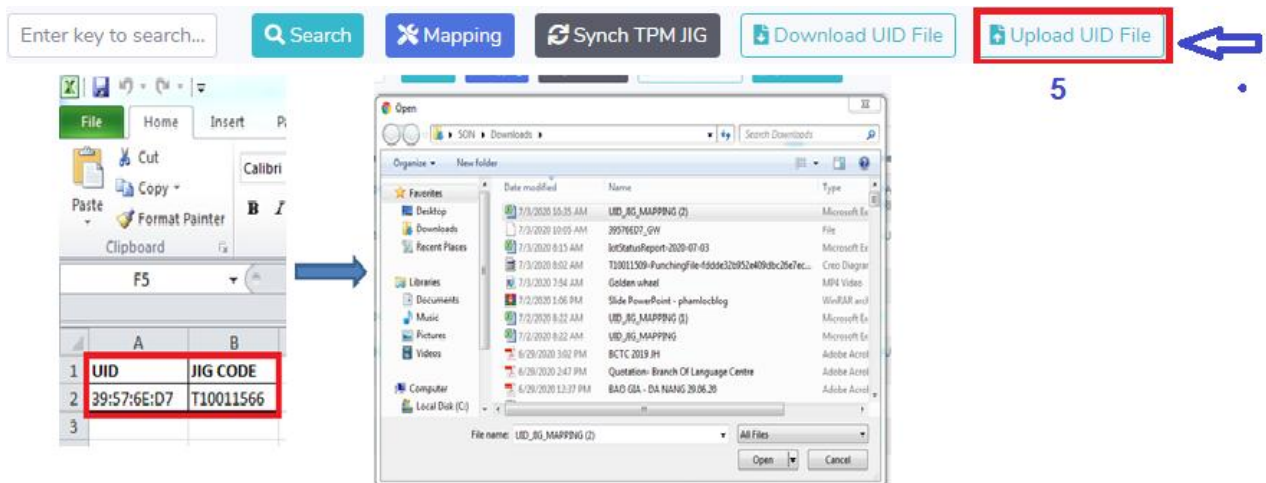
No **Yes**

✓ Success
Synch data success! ×

4. Jig tool → download file to fill up UID & Jig code



5. Jig tool → upload file to fill up UID & Jig code



<div> <input type="text" value="Enter key to search..."/> <input type="button" value="Search"/> <input type="button" value="Mapping"/> <input type="button" value="Synch TPM JIG"/> <input type="button" value="Download UID File"/> <input type="button" value="Upload UID File"/> </div>								
1	2	3	4	5				
Orig Uid	Uid	Jig Code	Jig Name	Serial No	Machine Model	Style Name	Buyer Name	#
1096471049	41:5A:D2:09	T10028622	LLM URBAN NOMAD UNICORN	LLM URBAN NOMAD	UAS-H3020	LM9AFSS Urban Nomad Backpack	LULULEMON	
	93:ED:09:CA							
	93:E6:2B:CA							
	93:E6:02:8A	T10011461	JIG RLM 0240 MAY DAI	RLM 0240 MN CNCH TOTE NYLON	SPS/A-1811HS-20		RALPH LAUREN	
	93:13:BF:DA	T10000502	JIG-GRG0013-Maya-Front Panel(test)	JIG-GRG0013-Maya-Front Panel(Test)	SPS/C-B1201HA		GREGORY	
	93:F0:7F:8A							
	39:57:6E:D7							
	02:B8:80:5C							
	02:B8:6A:BC							

7. Warehouse

Description: Warehouse monitoring to show up temperature and humidity status

- 1.
- 2.
3. Selecting warehouse, Period time, date

It possible to select history data of previous dates

It can record data by hour, daily, weekly, monthly.

--Choose warehouse--
--Choose warehouse--
WH-FINISHED GOODS
WH-LEATHER

--Period Time--
--Period Time--
ReportDaily
ReportWeekly
ReportMonthly
ReportYearLy

--From date--
--To Date--

November 2020

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

4. Export excel file

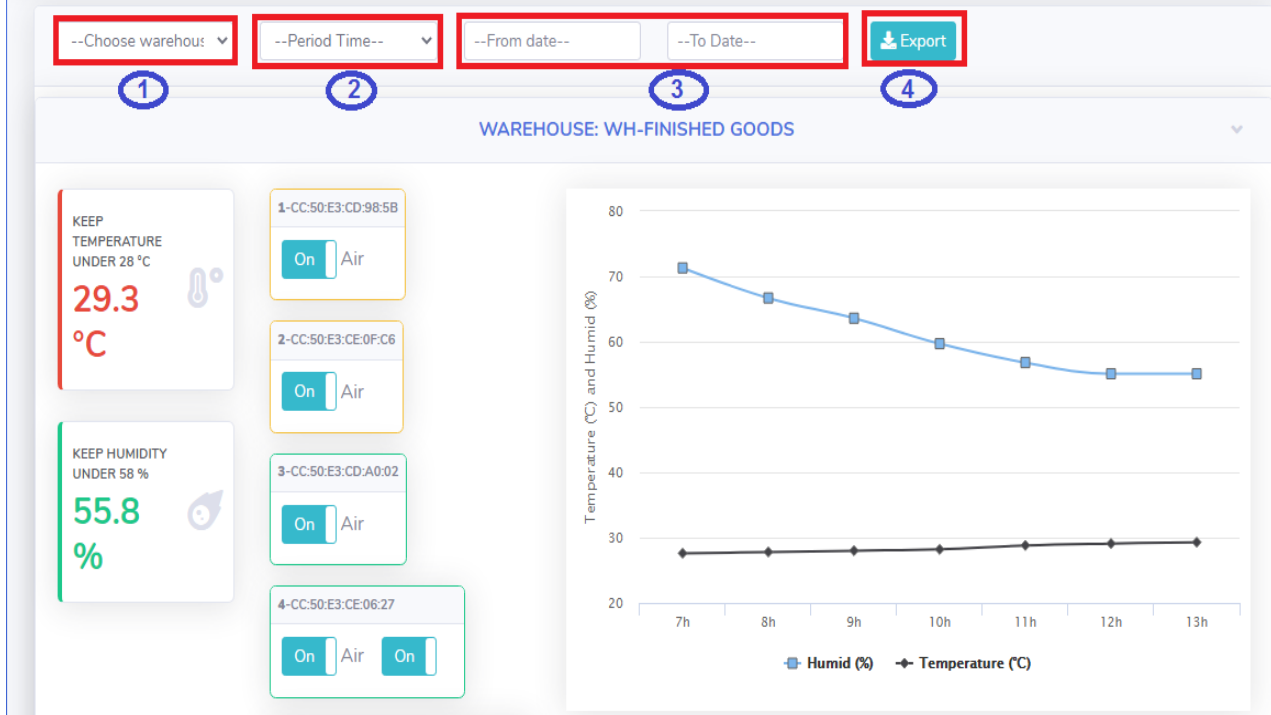
WAREHOUSE MONITORING REPORT				
1	WAREHOUSE			
2	Warehouse	WH-FINISHED GOODS		
3	Period	From: 2020-10-16 To: 2020-10-16		
4	Date Create	2020-10-16 13:55:23		
5				
6	DATE	HUMIDITY (%)	TEMPERATURE (°C)	TIME SEND
7	2020-10-16	55.1	27.1	2020-10-16 13:00:00
8	2020-10-16	55.1	27.1	2020-10-16 12:00:00
9	2020-10-16	56.5	28.8	2020-10-16 11:00:00

➤ Setting range:

Maximum: 28°C for Temp, 58% for Humid

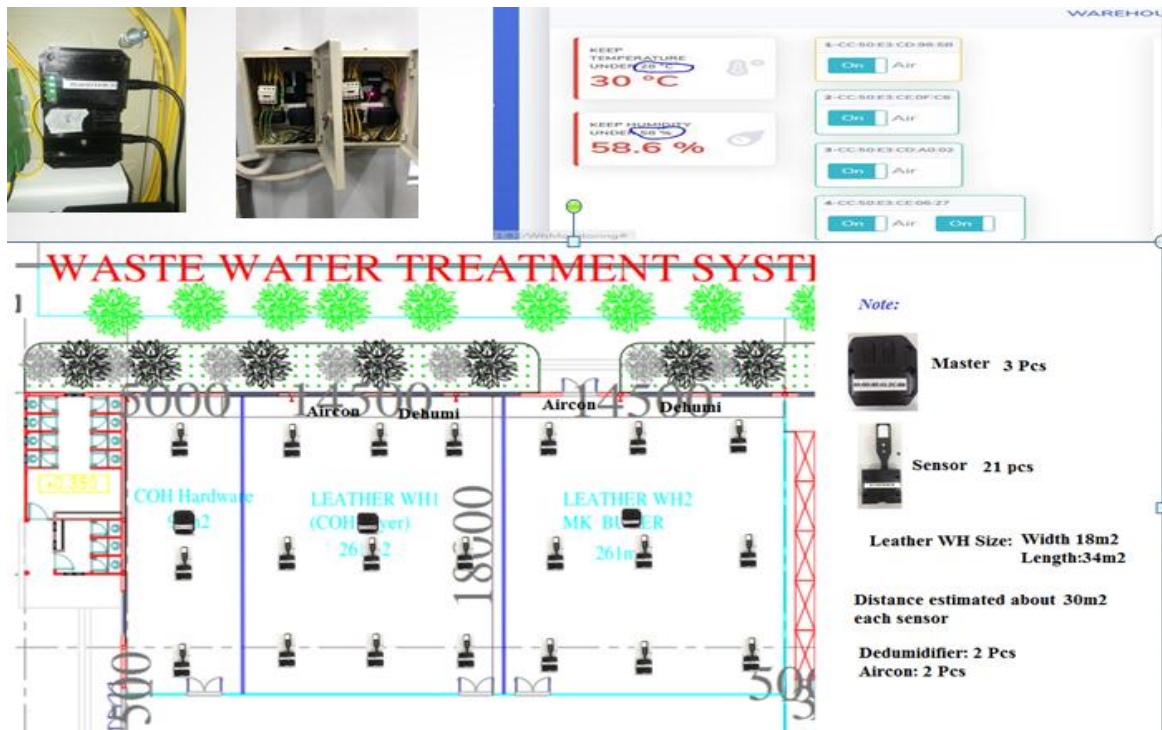
Meaning:

When temp/hum reaches to 28°C/>58% => Dehumidifier will be automatically turn on.



➤ Illustration:

Sensor, master is set up in warehouse area to control ON/OFF temperature and humidity machine , using wifi to collect data and sending to DGS.



8. Utilities

This function in order to mapping Machine ID and Mac address

1. Download file, then fill up Machine ID, then choose file
2. and upload.
- 3.

Utilities

Mapping lot Machine Id

Choose File

No file chosen

2

— Upload excel file Mapping lot with Machine Id

3

Upload

Download

1

Access Point Infomation

Choose File

No file chosen

— Upload excel file Ap Infomation

Upload