



Reader and i-Tag based system

Real Time data capture & Monitoring Console





Benefits of Industry 4.0



Components



past.present.future.tech



Data Readers



Data Mine



Analytic Console

MA-JEVI Reader



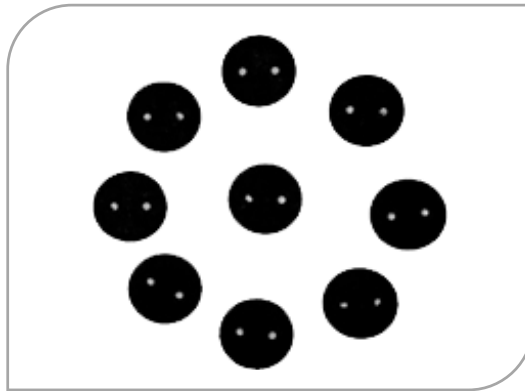
MA-JEVI readers capture the punches made by the operators for Log-In, Log-Out, Vehicle Start and Vehicle End and updates the information in the central database server instantaneously.

The reader displays the Operator's name, Target, Actual production, Efficiency, Idle Time and Excess Time.

The reader has four functional keys for the following :

- **Info** – Toggle between Operators' production and Operation time details.
- **Mech** – During machine breakdown, Operator can request for a maintenance attention by pressing this key. Reader sends an alert as SMS to the concerned maintenance person.
- **Supr** – Operator can request for a Supervisor attention by pressing this key. Reader sends an alert as SMS to the concerned supervisor.
- **Sngl** – For Piece-by-piece accounting, this key is pressed on completion of service of every vehicle

VERTICAL



- i-Tag
- RFID – Low Frequency
- RFID – High Frequency
- Input via Reader Keypad

Black – Vehicle Tag, will be assigned to the vehicle with ref to RO @ the Entry

Red – Technician Tag, will be assigned to each technician in the workshop

Green – QC Tag, will be assigned to each QC person in the workshop

Yellow – Cleaning or other attenders Tag, will be assigned to other attenders in the workshop



Reader (QC)



A MA-JEVI Reader is attached to every Bay in the workshop. This reader can be configured as Waiting / Service / QC / Finished.

The Reader displays the operators' name, Wash, Service, rework, waiting for parts and Customer complaints.

VECTRA





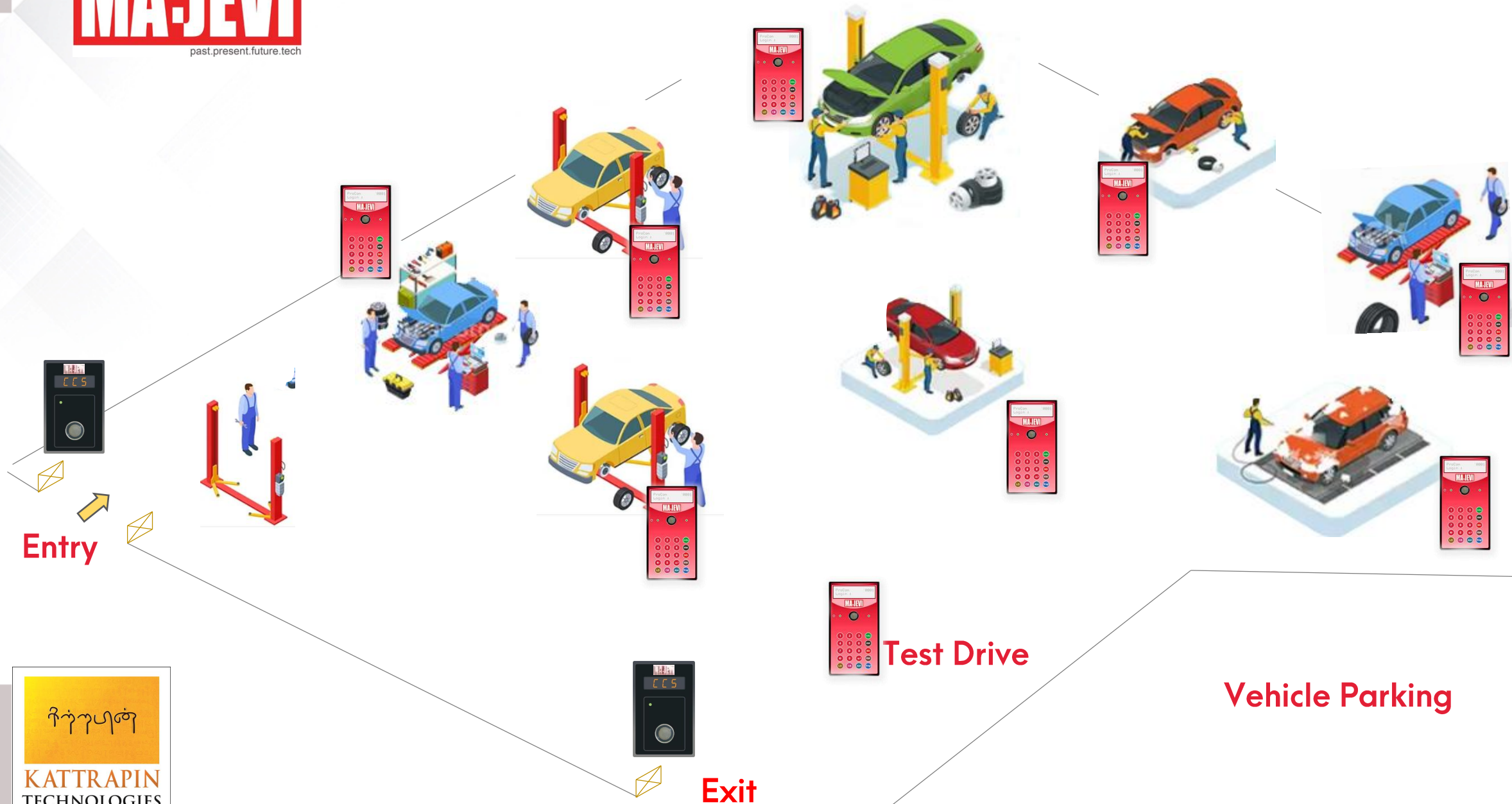
Data Capturing Software :

This software is installed in the Data Capturing PC in the production floor which captures the punches from all the readers and updates the central database instantaneously.

Dashboard :

MA-JEVI Dashboard is an application software that displays the real time status of all the service lines graphically. This application is installed in all the client machines. This application refreshes the data automatically at the set intervals of time.

Workstation



Entry

Test Drive

Vehicle Parking

Exit

Line Display



Metric Display



LED TV

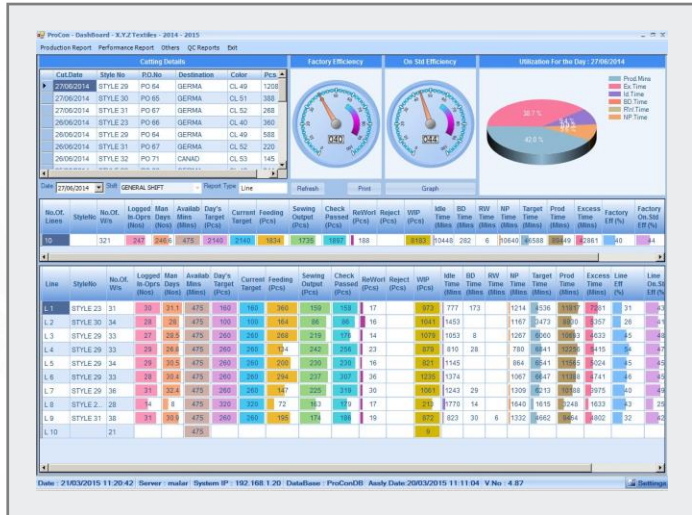


Indicators

VECTRA

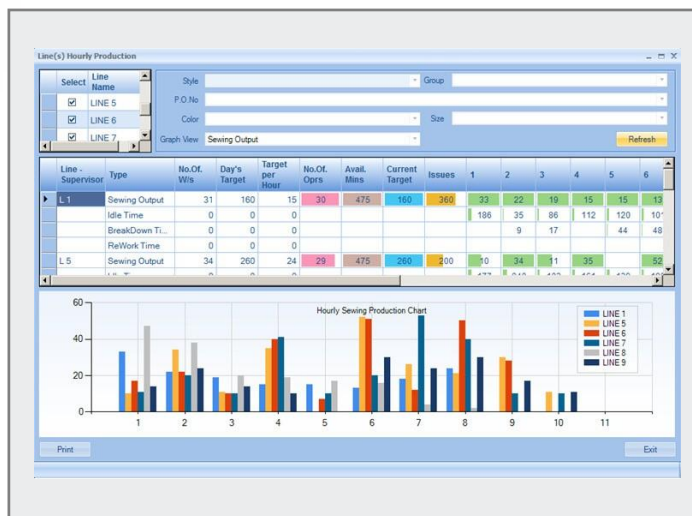


DashBoard



MA-JEVI DashBoard is an application software that displays the real time status of all the service lines graphically. This application displays the macro level information of all the service stations. Micro level information can be viewed by drilling down the respective cells.

Key columns displayed are Man Hours, No .Of Operators, Available Minutes, Days Target, Feeding, Sewing Output, Check Passed, Rejection, WIP, Idle Time, Rework Time, Breakdown Time, Non Productive Time, Production Time, Excess Time, Line Efficiency, Estimated Output.



Provides various types of graphs at all levels for analysis and comparison.



Accountability



On Std. Time	Off Std. Time	Production
Operator worked minutes	Operator Idle time	Operators' production
Produced minutes (Pieces X SAM)	Operator NPT	Operations' production
Cycle Time	Machine Down time	Style / Order Production
	Alteration time	Color / Size wise Production
	No Feeding	Line / Section Production
	Operator Training	Work In Progress
	Line Setting	Utilization of Minutes
	Line NPT	QC Pass/Rework / Rejection
		AQL
		Finishing
		Packing



Skill Matrix Report



Skill Matrix Report

Location: [] Employee: [] From Date: 01/06/2014 To Date: 27/06/2014
 Between Dates As On Date

Line: [] Operation: [] Shift: []
 Operation wise Employee wise Top N: [] Efficiency Between [] and []
 Tabular Report **Process**

SI.No	EmployeeNo	EmployeeName	Line Name	Effeciency (%)
Att. and Finish Tab				
1	48286	AMIT		38.22
2	46534	GEETA DEVI		14.31
3	39453	MENKA DEVI		49.44
4	38597	NAZIA BEGUM		36.11
5	47214	NEERAJ KUMAR		48.56
6	45567	PAVAN KUMAR		44.30
7	46339	POOJA		77.00
8	43493	RADHA		45.88
9	44517	SEEMA SHARMA		84.78
10	43291	SUDHA DEVI		68.42
Attach and Finish Elastic @ Sleeve Op				
1	45926	MOHD FIROJ		24.53
2	44131	SUDHIR PRASAD		41.20
Attach and Finish Flap @ Front				
1	47442	OM PRAKASH		27.89
2	49396	RAMA KANT		25.40
Attach and Finish @ Back Placket				
1	43383	AVNISH KUMAR		44.73
2	46534	GEETA DEVI		26.40
3	49117	KAPIL KUMAR		34.60
4	40239	MAMTA SRIVASTAV		23.95

Print Skill Matrix Database available between 13/02/2014 - 11/02/2015 Exit

Operation wise & Operator wise



WIP Reports (Workstation)



WIP Details for - L 1

WorkstationWise **WorkStation - Operation Wise** Group Wise Operation Wise Color - Size wise

Style: STYLE 23 Group: Sleeve placket

P.O.No: Color: Size: Refresh

Ws No	Style No	Group Name	Operation Name	WIP Pcs
3			Attach Band To Colla	0
12			Tack Piping For Slee	404
13			Attach Binder To Sle	0
14			Att. and Finish Tab	20
14			Press Tab	13
14			Press Cuff	0
16			Mark and Attach Ta	167
19			Mark Collar	88
19			Make Collar	0
20	STYLE 23	Sleeve plac	Trim and Turn Colla	10
20			E/S On Collar	0
20			Trim Collar and Ban	0
22			Mark and Press Coll	22
22			Press and Mark @	10
24			Run Stitch @ Band	106
24			Attach Band To Colla	0
26			Mark and Attach Ta	0
32			Trim Extra Margin Be	22

W.I.P. - Operation wise Report

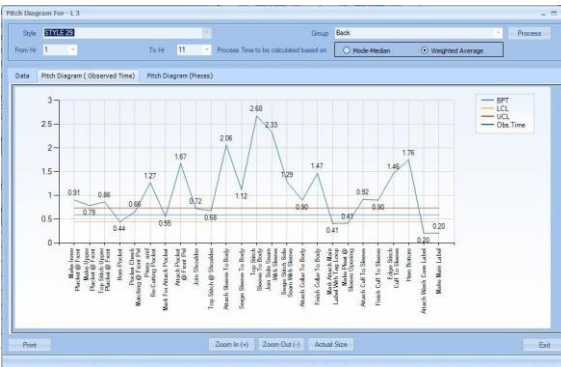
Legend: W.I.P. Pieces

Operation Name	W.I.P. Pieces
3 - Attach Band To Collar	0
12 - Tack Piping For Sleeve Slit	404
12 - Attach Binder To Sleeve Slit	0
13 - Apr. and Finish Tab	20
14 - Press Tab	13
14 - Press Cuff	0
16 - Mark and Attach Tab To Sleeve	167
19 - Mark Collar	88
19 - Make Collar	0
20 - Trim and Turn Collar	10
20 - E/S On Collar	0
20 - Trim Collar and Band Base	0
22 - Mark and Press Collar Band	22
22 - Press and Mark @ Collar Center	10
24 - Run Stitch @ Band	106
24 - Attach Band To Collar	0
26 - Mark and Attach Tab To Sleeve	0
32 - Trim Extra Margin Base and Mark	22

Print Zoom In (+) Zoom Out (-) Actual Size Exit

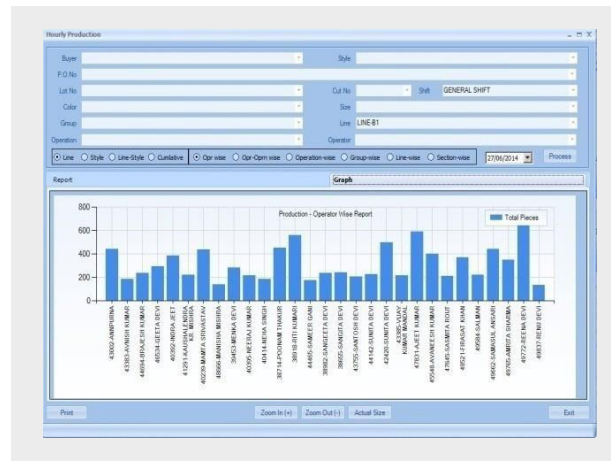
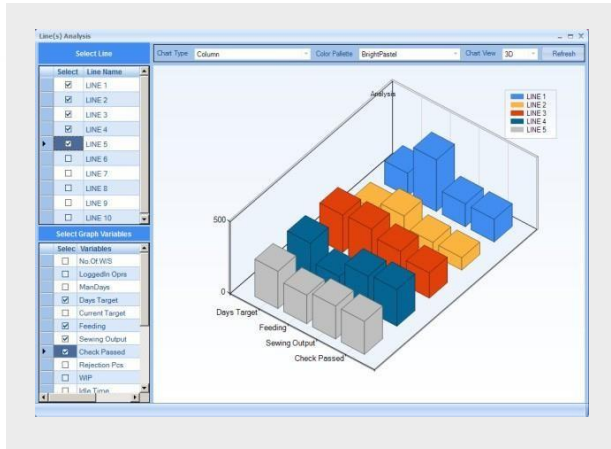


Key Features



- Operation time (SAM) validation
- Sequential integrity of the operations
- Avoids double accounting of production/Service
- Accountability of Off-standard time viz, Idle time,
- Breakdown time, Rework time and Non Productive time
- Supports Progressive Vehicle service operations
- Supports Individual Incentive methods
- Seamless integration to other application systems
- Features and validations of this system are user configurable





- Centralised on-line production status
- Accurate operator performance
- Alerts for exceptional situations
- Efficient line balancing
- Decreased downtime
- Improved Work In Progress
- Improved in-line quality control
- Reports in multiple formats
- User friendly application interface

*Thank
you* 



Kattrapin Technologies Private Limited
India & UK

- **web :** www.kattrapin.com
- **email:** ram.shanmugavel@kattrapin.com