



Assembly Line Operating System

Transform your assembly line with a scalable digital backbone built to maximise human and machine performance.

PROBLEM – Factories are buying **GOLDEN ROOFS**



Many factories stack complex, **fragmented systems** onto assembly lines never built to handle them, creating a fragile, unstable foundation.

It's like placing **A GOLDEN ROOF ON A SHACK**—costly, impressive, but ultimately inefficient and unsustainable.

Fragmentation Tax - The Barrier to Industry 4.0 and AI adoption

Modern assembly lines must carry out a variety of complex functions. To accomplish this, they rely on integrating multiple separate systems dedicated to Process Control, Quality/Traceability, Vision Control, Analytics and Maintenance.

Analytics platform	SimAnalytics	symestic	AVEVA	ignition*					
JIT/JIS/ Variant management	symestic	SAP	SYSPRO	leadec	nemetris				
Build Queue	SYSPRO	ARGONAUT	SAP	MRPeasy					
Quality/Traceability	ACCUPOINT	GoAudit	Inhouse	Paper based	SMART LEAN solutions				
Performance Data	OEEsystems by MainMaster	CHECK PROOF	RAVEN	ofs	AVEVA				
System Final Buy-off	SAP	SYSPRO	ARGONAUT	Inhouse					
Process Compliance	Hardcoded in PLC or MES								
Computer vision quality controls	LANDING AI	ZORON	AIR INNOVATIONS	Adocotech	AUTAZA	LINCODE	COGNEX		
Rework Management	Paper based	Inhouse	Dev	symestic	accevo	ACCUPOINT			
Operator Guidance	DEPRAG	NEXUSTEC	VKS	MiniTec	PTS	LightGuide	PIVOTWARE	SYNATEC	ARKITE
Industrial equipment comms	OPC UA	MQTT	PROFIT NET	EtherNet/IP					

SMART LEAN solutions	Paper based	5S	Lean management	
Paper based	UpKeep	PandaDoc*	Asset Documentation	
cenosco	MAKR SAFE	enbasa	Safety Audits	
SYSPRO	Upkeep	navify	Equipment Verification	
fiix	UpKeep	SAP	PARSALE	Preventative maintenance
PARSALE	WhatsApp	Paper based	Breakdown Management	
thinger.io	ThingsBoard	ignition*	IIOT Platform	

Assembly Line



- Full Auto Line
- Semi Auto Station
- Manual

PROBLEM - Fragmentation Tax

After building 3,000 assembly systems, we discovered a \$275B 'Golden Roof Fragmentation Tax' that traditional software cannot fix.

Fragmented systems

Many factories stack complex systems onto assembly lines never built to handle them, creating a fragile, unstable foundation.



The Core Issues:

The Productivity Drain:

Inflexible assembly lines and uncontrolled **manual processes** result in high training expenses and low operator productivity.

The "Process Enforcement" Gap:

Traditional software provides visibility but lacks **hardware-level enforcement**, leading to uncontrolled manual assembly processes and high defect rates.

The Data Paradox:

Manufacturers are "**data rich but insight poor**" because disconnected systems and data silos prevent proactive production management.

The Hidden Integration Tax:

Manufacturers spend **30% more** and face constant delays attempting to bridge the gap between their software and their machines.

Reactive Operations:

Without **predictive intelligence**, management remains reactive rather than proactive, unable to stop errors before they happen.

SOLUTION - An Assembly Line OS ->Transitioning from "top down disconnected visibility-only" tools to a deep, **hardware-level enforcement** foundational layer that is "AI-ready" from day one.



ODIN Assembly Line OS:

Productivity Multiplier:

AI-enabled intuitive dynamic guidance and automated rework management slash training expenses and maximize human efficiency. – “Google Maps “for operators

The No-Code line configuration boosts flexibility, allowing customers to adapt quickly to shifting product and volume demands.

The "Process Enforcement" Cure:

Direct PLC and hardware communication replaces mere "visibility" with active hardware-level process enforcement, stopping defects at the source.

The Data Paradox Solved:

By owning the execution layer, we capture contextually rich, "noise-free" data, transforming "data rich" into "actionable intelligence."

Zero Integration Tax:

A single ecosystem spanning MES, CMMS, and AI removes the 30% overhead and chronic delays caused by forcing multi-vendor systems to talk to each other.

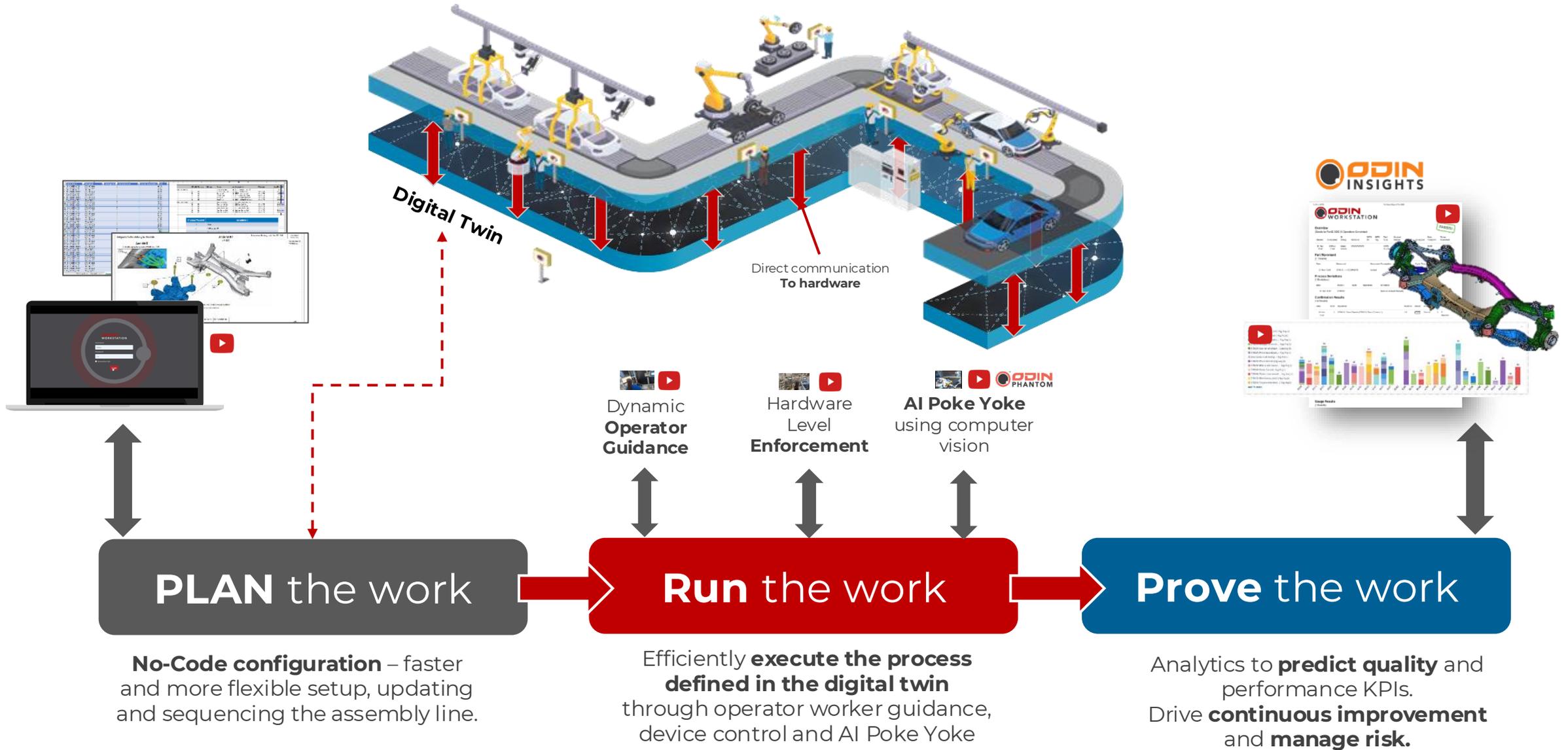
Agentic Intelligence:

Our "Physical Nervous System" enables most granular, "noise-free" data moves operations from reactive to predictive, enabling AI Agents to optimize the floor in real-time.



ODIN Workstation is an ASSEMBLY LINE OS

Single platform for Faster, Flexible Configuration, Execution and Validation of your assembly line



Good Data = Good Agents -> 4 Steps to Agentic Manufacturing

Manufacturing AI Requires Contextually Rich High-Quality Data- **ODIN Delivers this Better Than Any Other**



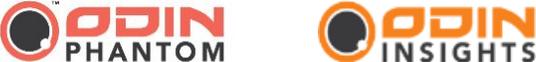
1 Connect & Control



ODIN doesn't just "watch" production— it enforces it at the hardware level.

Contextual Data Sovereignty: Because we own the execution layer, we capture the world's most granular, "noise-free" data

2 See & Validate



Using **ODIN Phantom** (Edge AI and Computer Vision) to model physical actions, ensuring 100% process compliance where sensors alone fail.

ODIN Insights provides a high-fidelity feed that enables AI Agents to understand the shop floor with 100% accuracy.

3 Think & Optimize The Agentic Leap

ODIN Agents

Contextually rich data for **advanced reasoning** with large language models (LLMs), enabling the creation of **intelligent assistants** like Tom, Dick, and Sally.

They provide intelligent assistance to everyone, from operators to CEOs, improving daily operations.



Tom
Quality



Dick
People



Sally
Production

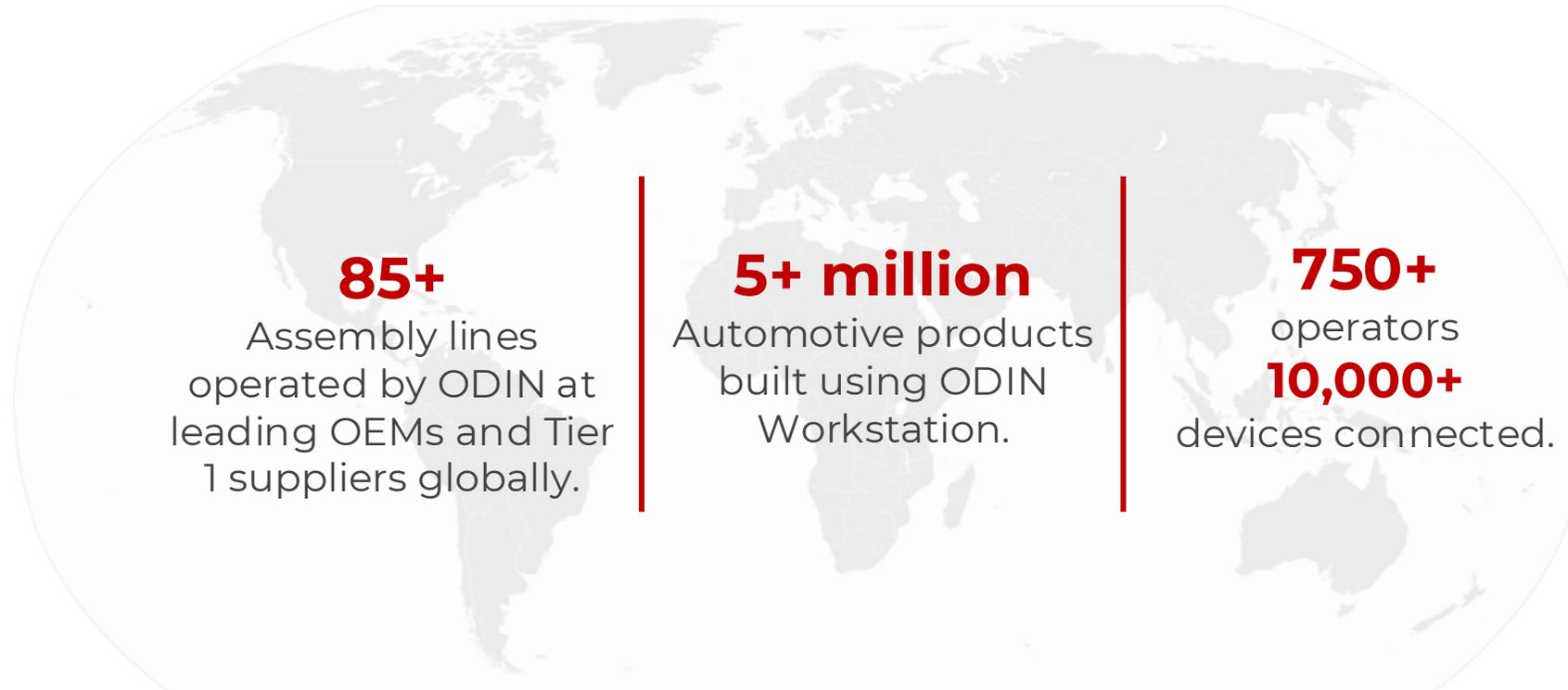


4 Moving toward **Agentic Optimization**, where the factory floor learns, reasons, and improves itself in real-time (2027-2028)



Check it out!!

Global Validation and Results





Case Study

High variant, low volume Manual Engine assembly line



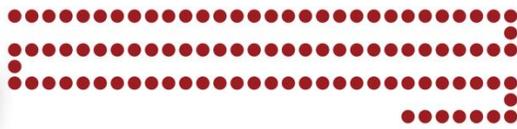
The objective was to merge the processes of two assembly lines (160 stations) that produced 4- and 6-cylinder engines into a single manual assembly line of 6 stations, while preserving the same engine variants and ensuring the highest quality and compliance with procedures.

Plant: Gyor, Hungary
2 standard engine assembly lines
with a combined 160 stations



4-cylinder petrol engine

100 Stations | 60s Takt



6-cylinder diesel engine

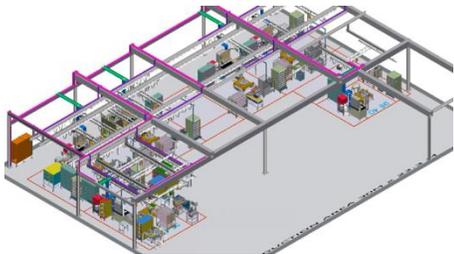
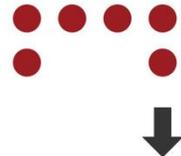
60 Stations | 90s Takt



Plant: Aurangabad, India
1 manual, wholly digital line
with just 6 stations

Both engines
All 60 variants

6 Stations | 45min Takt



[Link to Operator Guidance](#)

Runs on



50%

Reduction in training times

200%

Increase in production output with a multi-operator function

50%

Improved quality via higher first-time through-rates



Case Study

High volume JIT/JIS Axle assembly line

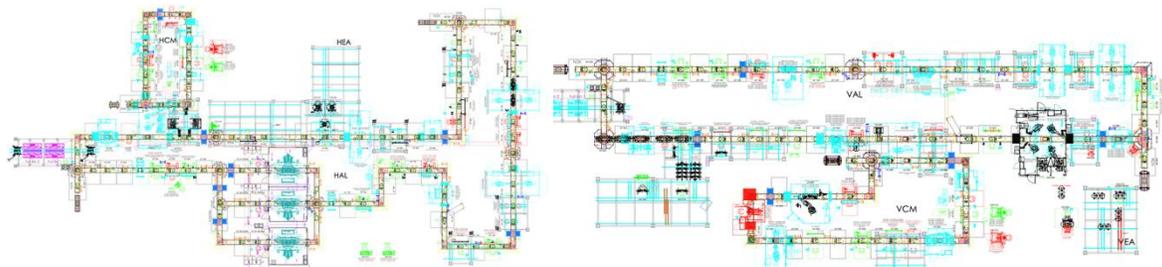
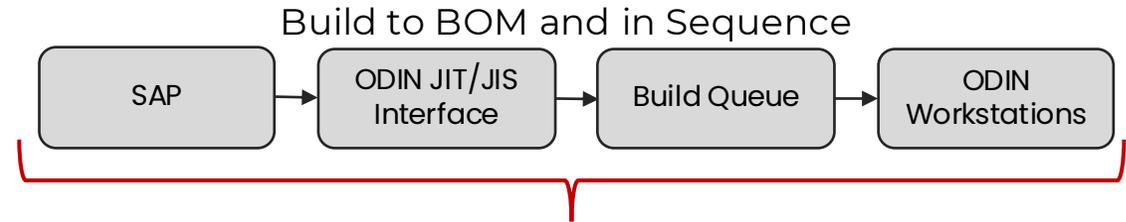


Product/ Module: Axle assembly lines BMW NCAR
 Front axle assembly, rear axle assembly line, pre-assembly corner modules, FA+RA Electric drive
Plant Location: Greenfield Munich

Scope of work:

- 105 assembly stations controlled by **ODIN Workstation**
- 165 tightening tools – direct integration to **ODIN Workstation**
- 120 Fixed barcode scanners - direct integration to **ODIN Workstation**
- 65 Cameras - direct integration to **ODIN Workstation**
- 28 Robots,

Production concept: Just in sequence (JIS) ODIN Workstation
Cycle time: 55 seconds



Rear axle assembly

Front axle assembly



40%

Reduction in on-site commission time

60%

Faster identification and implementation of optimised station operations

50%

Reduction on operation on boarding training cost



Case Study

GM - 75sec Differential Assembly line

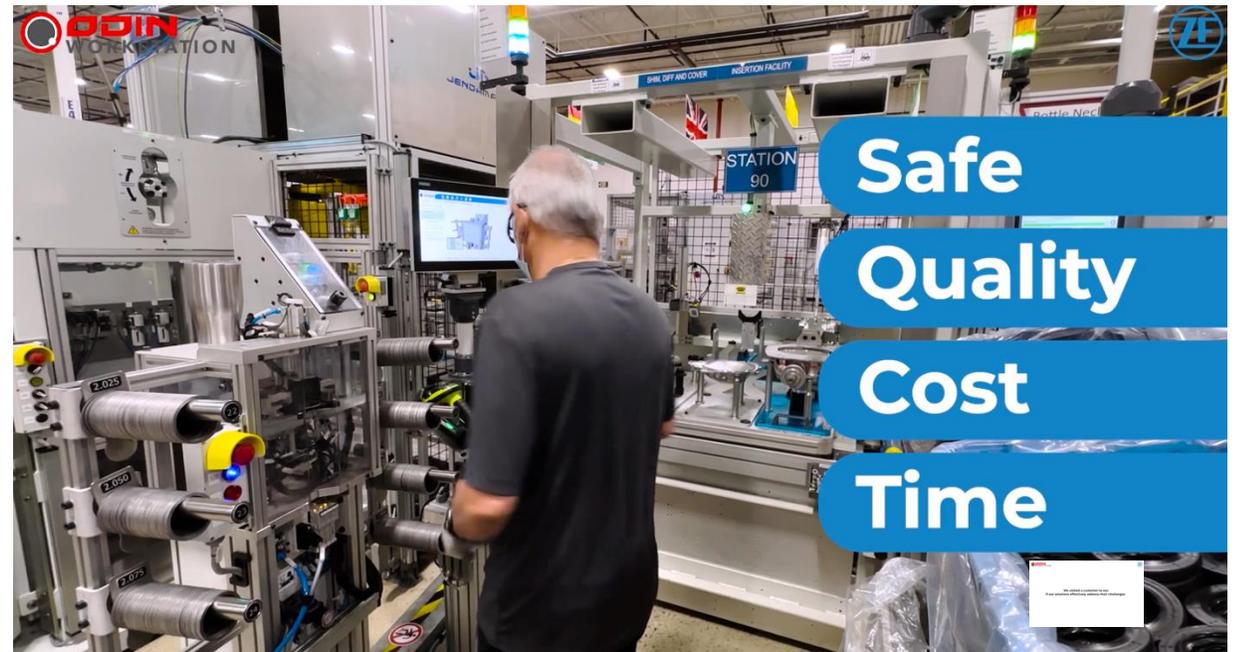


How ODIN Workstation helps improve Quality, Safety, Training and 5s

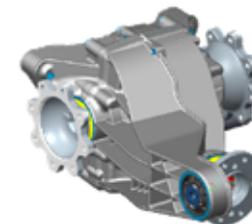
Time-lapse over 8 months during line commissioning
[\(video link\)](#)



Hear from the customer
[\(video link\)](#)



Runs on



Key Benefits for Manufacturers

TENNECO

80%

Improvement in Quality output

ELECTRA EV

100%

Process and quality traceability

DANA

70%

Faster access to data analytics and predictions

BHARAT FORGE | **KALYANI**

50%

Reduction in scrap cost

ASHOK LEYLAND

50%

Reduction in training time

Audi

200%

Increase in Production with flexible multi-operator planning

Mahindra

30%

Faster Implementation of changes

ZF

80%

Improvement in 5S Compliance

ABOUT JENDAMARK - We have built **3000+** automotive assembly systems

Est. 1989 | 800 employees | 100+ Global Customers | Solutions delivered to 35+ Countries

4 Global Offices: South Africa (HQ) | India | Germany | USA | 2 Service & Support Partners: China | Mexico

3 Divisions: Automation | Digital Manufacturing | Digital Education

Turnkey Assembly lines

Design | Manufacture | Commission | Install

Powertrain, EV, Catalytic Converter, Auto Components



DIGITAL MANUFACTURING

ODIN MANUFACTURING

Digital solutions to enhance human efficiency and performance.



DIGITAL EDUCATION

ODIN EDUCATION

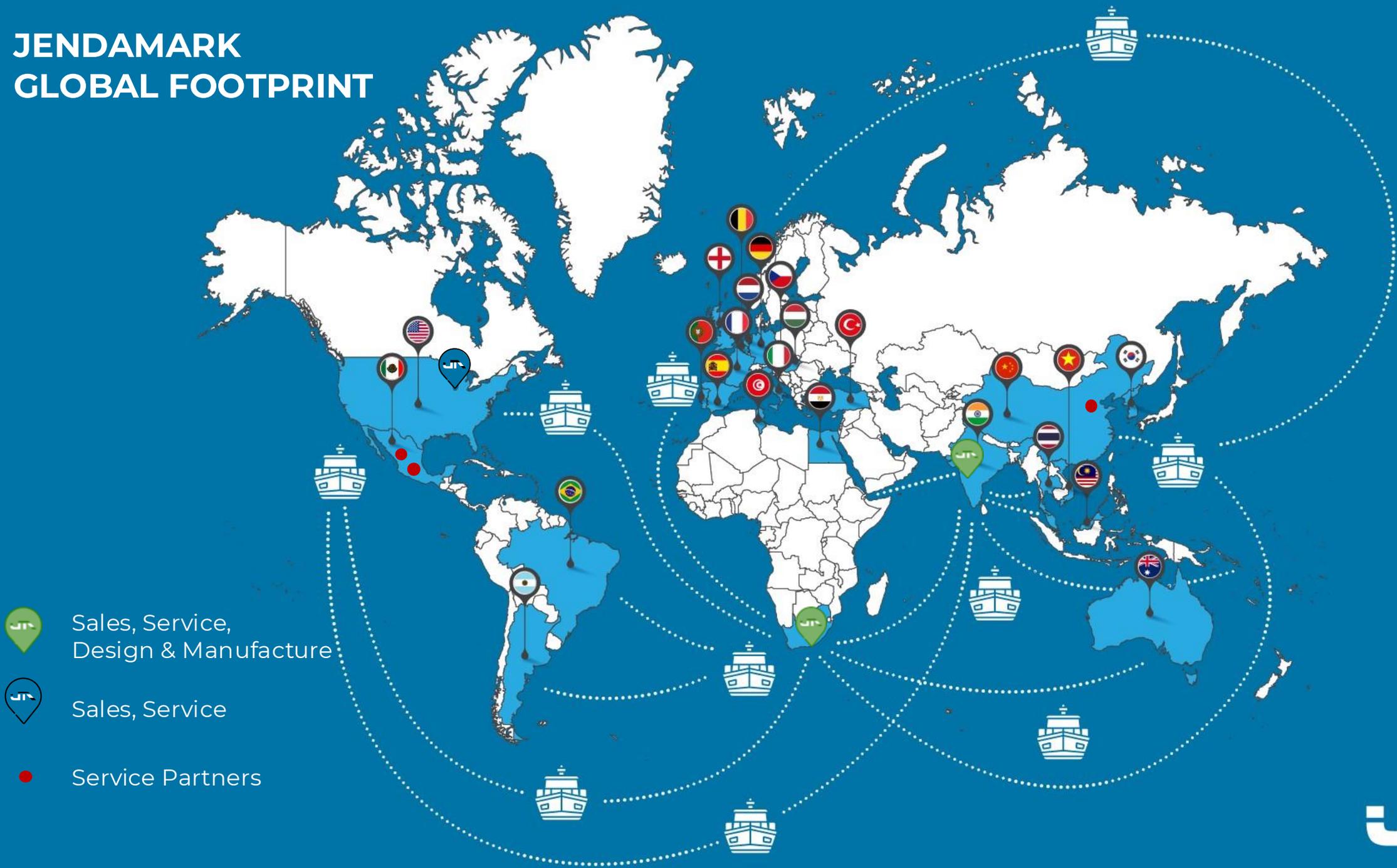
The AI learning solution to transform the educational landscape



Our Global Customers



JENDAMARK GLOBAL FOOTPRINT



-  Sales, Service, Design & Manufacture
-  Sales, Service
-  Service Partners



ODIN Ecosystem Story – Customer challenges drove the innovation



Transition from mass production to Mass Customization (every vehicle has a unique spec/BOM).

- ➔ **Dynamic Process Control**
- ➔ Built a system that dynamically adjusts instructions and tool settings in real-time based.

The Customization Wave



Recognizing that ODIN was years ahead of the "Industry 4.0" hype.

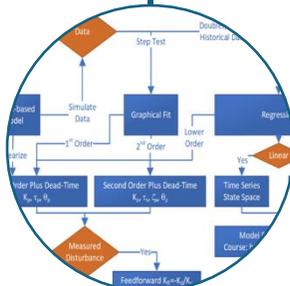
- ➔ **The Birth of the AssemblyOS**
- ➔ Formalized ODIN as a standalone product.
- ➔ Shifted from a custom machine-builder tool to a scalable **Operating System for Assembly Line.**

2018 Productisation

2000s: The Catalyst

Post-apartheid South Africa enters the global stage. High illiteracy vs. strict global export quality standards.

- ➔ **Intuitive Worker Guidance**
- ➔ Developed animated, image-based instructions that bypassed language barriers entirely.



The Architectural Pivot

Traditional PLC "hard-coding" became too complex and rigid for high-variation lines.

- ➔ **Data-Driven Architecture**
- ➔ Decoupled logic from the hardware.
- ➔ **No-Code** manipulation of the production line via a web app.



Developed from the bottom up (NOT top down)

25 years of Innovation through real world shopfloor challengers

ODIN Manufacturing is **incubated** within Jendamarck, which provides **real-world industrial credibility.**

ODIN has proven results across **100+ automotive** assembly lines worldwide, having already produced **5+ million.**

Bottom up
Development



* The automotive industry is widely recognized as the **pinnacle of modern manufacturing complexity**, setting the global benchmark for lean production, supply chain integration, and quality management systems



ODIN
WORKSTATION

FEATURE DETAILS

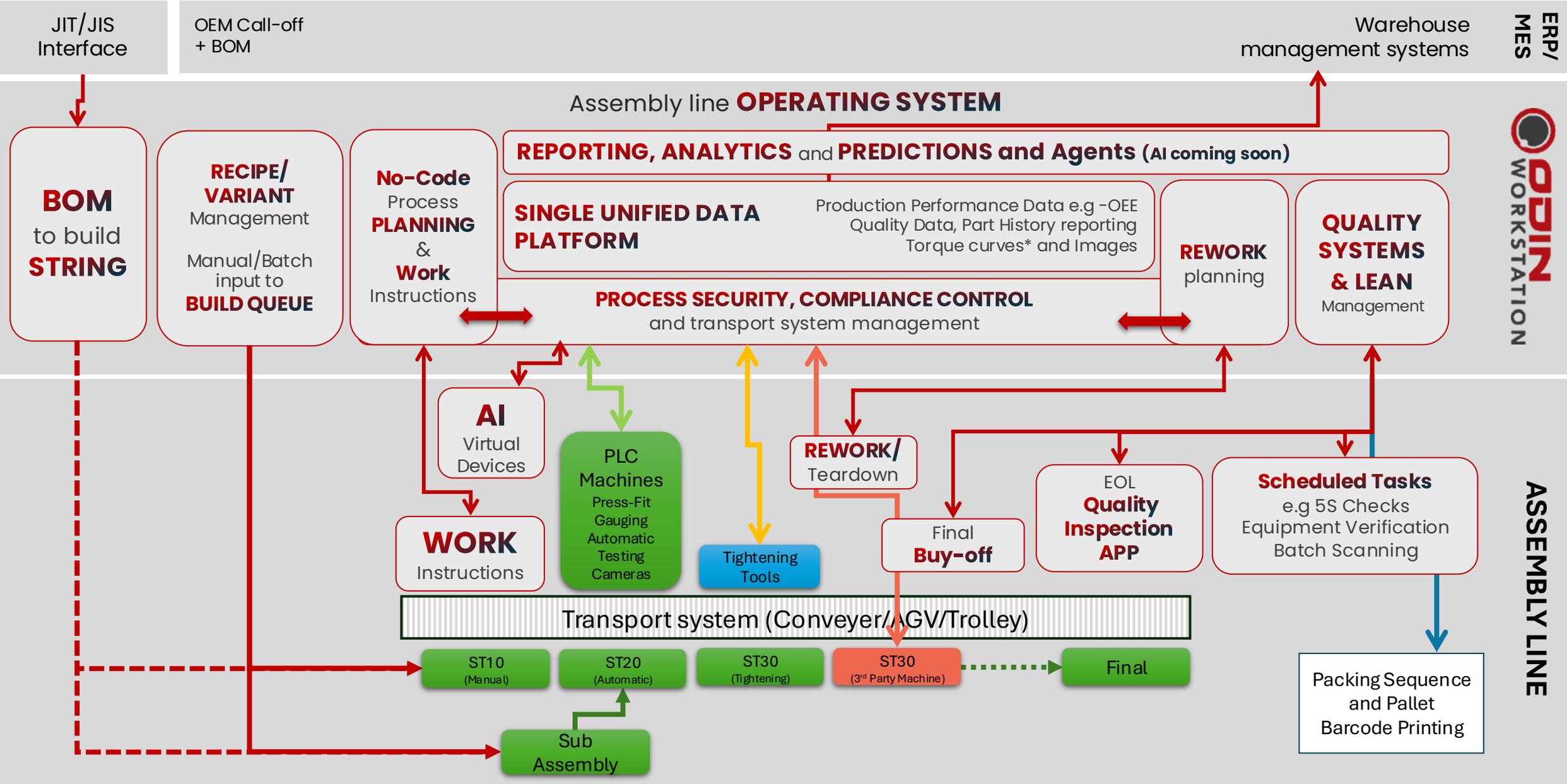


ODIN Workstation – Summary of features

ERP/
MES

ODIN
WORKSTATION

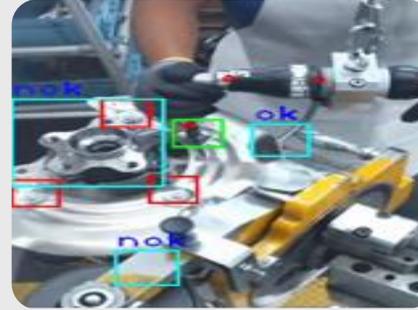
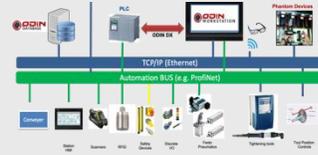
ASSEMBLY LINE



Smart
WORK
Instructions



Deep
HARDWARE
Integration



AI
Virtual
Devices

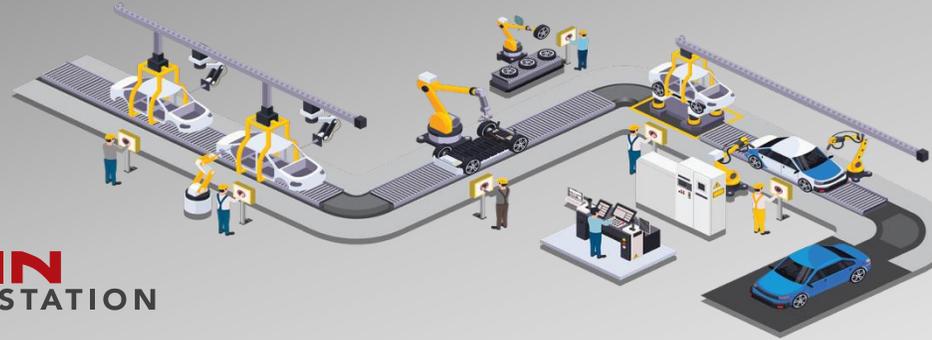


End of Line
INSPECTION
App

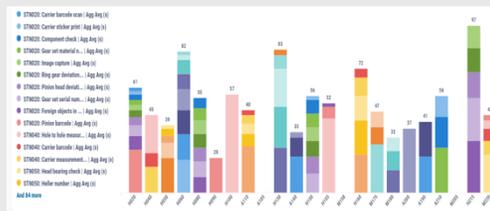


JIT/JIS
MULTI-PRODUCT
Assembly

Assembly line **OPERATING SYSTEM**



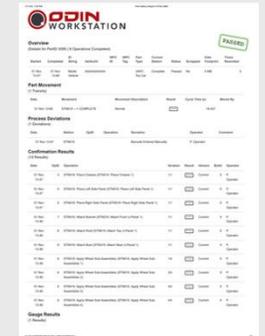
Smart Analytics for
DATA-DRIVEN
decisions



Integrated
REWORK
& Teardown

5S
Checklist
Out of Process
SCHEDULED
Tasks

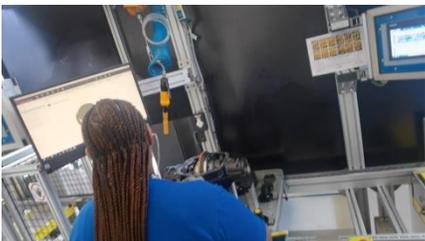
Quality
ASSURANCE
& Genealogy



Smart **WORKER** Guidance

Increased quality, production output and flexibility
Reduced training costs, ramp-up time and cost of scrap

“Smart Work Instructions provide intuitive, step-by-step guidance and integrate with station equipment to ensure operator and process accuracy and compliance. This feature is an effective on-the-job training tool, reducing the need for extensive training.”



Manual Stations



Semi Automatic Stations

Clear step-by-step animated instructions

- Intuitive “next step” indicators
- Display of operation results
- Display part numbers and bin IDs of parts to pick
- Display of tool/equipment to be used
- Instructions are connected to station equipment ensuing processes are confirmed by station hardware, e.g. tool positioning systems, camera checks, sensors etc.
- Two language options
- At Station Training



Ensure quality and efficiency with smart worker guidance



Hardware Enabled Worker Guidance



Tracking operator performance is crucial, and here's why!

AI VIRTUAL Devices



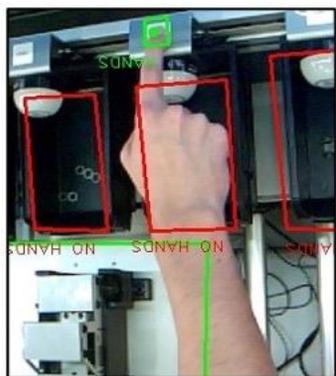
Reduces the cost of hardware
Increased flexibility, expandability and quality assurance

Using edge AI and computer vision, we can model physical devices such as bolting tools, sensors and clamps, which can then be virtualised and utilised as real devices on assembly stations.

AI Virtual devices can replace:

- Buttons with hand gestures
- Pick-to-light sensors with a vision system tracking
- Clamps
- Positioning systems

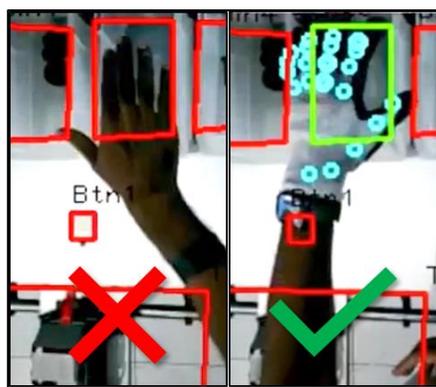
Virtual devices significantly lower costs by reducing the need for hardware, enhancing the adaptability of the assembly station and improving quality by enabling better process control.



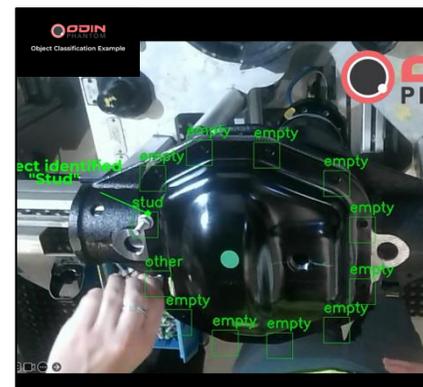
Replacing Virtual Buttons and Sensors save costs and increase flexibility



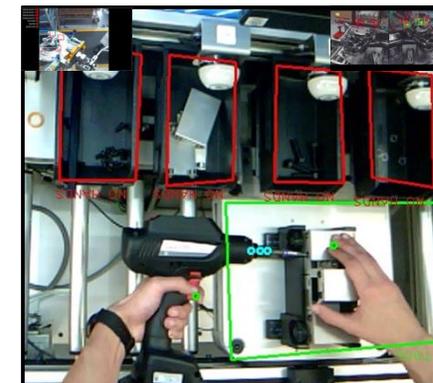
Hand tracking to ensure correct parts are picked



Detection of safety gloves. Station is only enabled when safety gloves are detected



Replace simple part in place sensors



Tool position tracking ensures the correct sequence is followed when tightening. If the tool is out of position, it is automatically disabled.



Quality **ASSURANCE** & Genealogy

Increased quality and first-time through (FTT)
Full traceability and recoding of all processes and test results

“The Quality Assurance and Genealogy feature ensures complete traceability by tracking each component’s production history and process compliance. It enables precise monitoring and documentation, ensuring every step meets rigorous quality requirements.”

- Process steps and **results recording** traceability and reporting

Comprehensive Part History Report including:

- All process results, including final results and setup parameters
- Quality images
- Manual picking results
- Process curves e.g. bolting and press-fit
- **Process deviations are recorded** against the supervisor that performed the deviation: Skipped operations, temporarily bypassed operations, sequence restart, sequence completed, manually moved parts, buy-off station override.
- Process Curve data, e.g., Bolting torques, Press force
- **Component scanning for validity and traceability**
- **Dunnage/Batch box scanning**
- User **access control** (Operator, Supervisor, Maintenance etc.)

Comprehensive Part History Report

11:04 15/11/2024 Part History Report of Part 3095

ODIN WORKSTATION

Overview
(Details for PartID 3095 | 8 Operations Completed)

Started	Completed	ID	WPC	WPC	Part	Current	Status	Scrapped	Data	Times
		String	Var/build	ID	Type	Station		No	Footprint	Reviewed
01 Nov 13:47	01 Nov 13:48	Model Vehicle	AAAAAAAAA		WPC1: Toy Car	Complete	Passed	No	0 MB	0

Part Movement
(1 Transits)

Date	Movement	Movement Description	Result	Cycle Time (s)	Moved By
01 Nov 13:48	STN010 -> COMPLETE	Normal	<input checked="" type="checkbox"/>	19.637	

Process Deviations
(1 Deviations)

Date	Station	OpID	Operation	Deviation	Operator	Comment
01 Nov 13:47	STN010			Barcode Entered Manually	P. Operator	

Confirmation Results
(10 Results)

Date	OpID	Operation	Iteration	Result	Version	Build	Operator
01 Nov 13:47	3	STN010: Place Chassis (STN010: Place Chassis 1)	1/1	<input checked="" type="checkbox"/>	Current	0	P. Operator
01 Nov 13:47	4	STN010: Place Left Side Panel (STN010: Place Left Side Panel 1)	1/1	<input checked="" type="checkbox"/>	Current	0	P. Operator
01 Nov 13:47	5	STN010: Place Right Side Panel (STN010: Place Right Side Panel 1)	1/1	<input checked="" type="checkbox"/>	Current	0	P. Operator
01 Nov 13:48	7	STN010: Attach Bonnet (STN010: Attach Front U-Panel 1)	1/1	<input checked="" type="checkbox"/>	Current	0	P. Operator
01 Nov 13:48	8	STN010: Attach Roof (STN010: Attach Top U-Panel 1)	1/1	<input checked="" type="checkbox"/>	Current	0	P. Operator
01 Nov 13:48	9	STN010: Attach Boot (STN010: Attach Rear U-Panel 1)	1/1	<input checked="" type="checkbox"/>	Current	0	P. Operator
01 Nov 13:48	6	STN010: Apply Wheel Sub-Assemblies (STN010: Apply Wheel Sub-Assemblies 1)	1/4	<input checked="" type="checkbox"/>	Current	0	P. Operator
01 Nov 13:48	6	STN010: Apply Wheel Sub-Assemblies (STN010: Apply Wheel Sub-Assemblies 2)	2/4	<input checked="" type="checkbox"/>	Current	0	P. Operator
01 Nov 13:48	6	STN010: Apply Wheel Sub-Assemblies (STN010: Apply Wheel Sub-Assemblies 3)	3/4	<input checked="" type="checkbox"/>	Current	0	P. Operator
01 Nov 13:48	6	STN010: Apply Wheel Sub-Assemblies (STN010: Apply Wheel Sub-Assemblies 4)	4/4	<input checked="" type="checkbox"/>	Current	0	P. Operator

Gauge Results
(1 Results)



Integrated **REWORK** & Teardown

Reduced risk of failed parts being delivered to the end customer
Reduced cost of rework and scrap

The integrated rework and teardown feature directs faulty parts for rework or teardown and provides a tailored strategy specific to the failure. This ensures quality by providing clear work instructions and allowing parts to re-enter the assembly line for retesting with the right equipment, reducing scrap costs and preventing defects.

- **Rework handling**

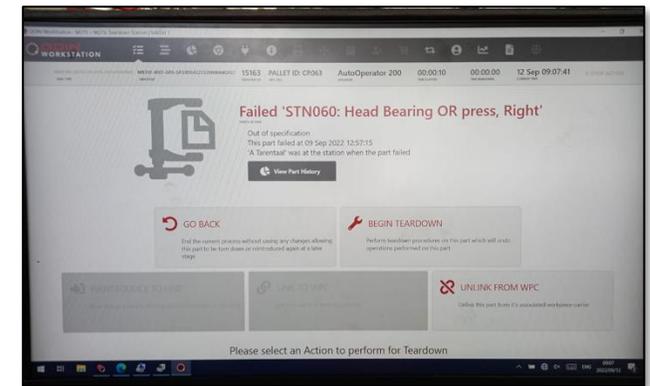
Ensures failed parts to be directed for rework stations with suggested rework or teardown operations based on the specific failure.

- **Rework parts return**

Reworked or torn-down parts can be reintroduced into the production line, ensuring they pass all the necessary inline processes and testing procedures. This reduces the risk of previously failed parts mistakenly finding their way to the customer.



Typical rework and
teardown station



Rework and teardown
station display

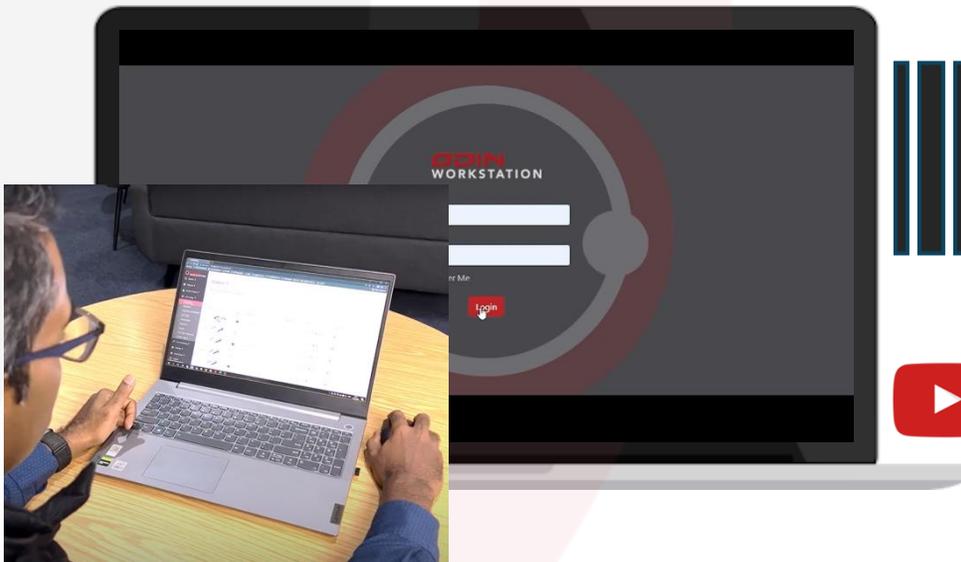
No-Code **PROCESS** Setup

Increases flexibility while reducing cost, risk and setup time.

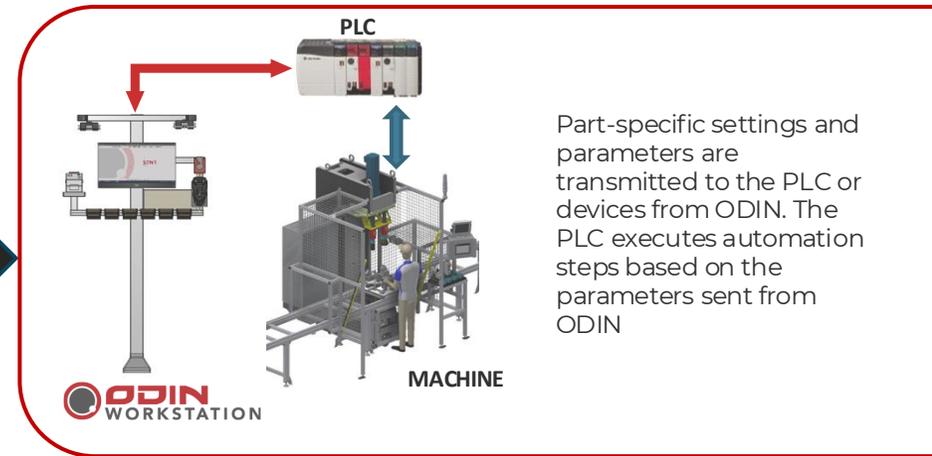
Process optimisations can be done continuously with minimal production interruptions (KAIZEN)

“This No-Code planning tool combines building work instructions, assigning process parameters and BOMs, and configuring PLCs and station devices. This becomes the central data hub for Products, Processes and People.”

Configuration of BOM, Process & Quality Parameters



Configuration settings and processes are automatically sent to the station Devices



CONNECT TO AN EXPERT

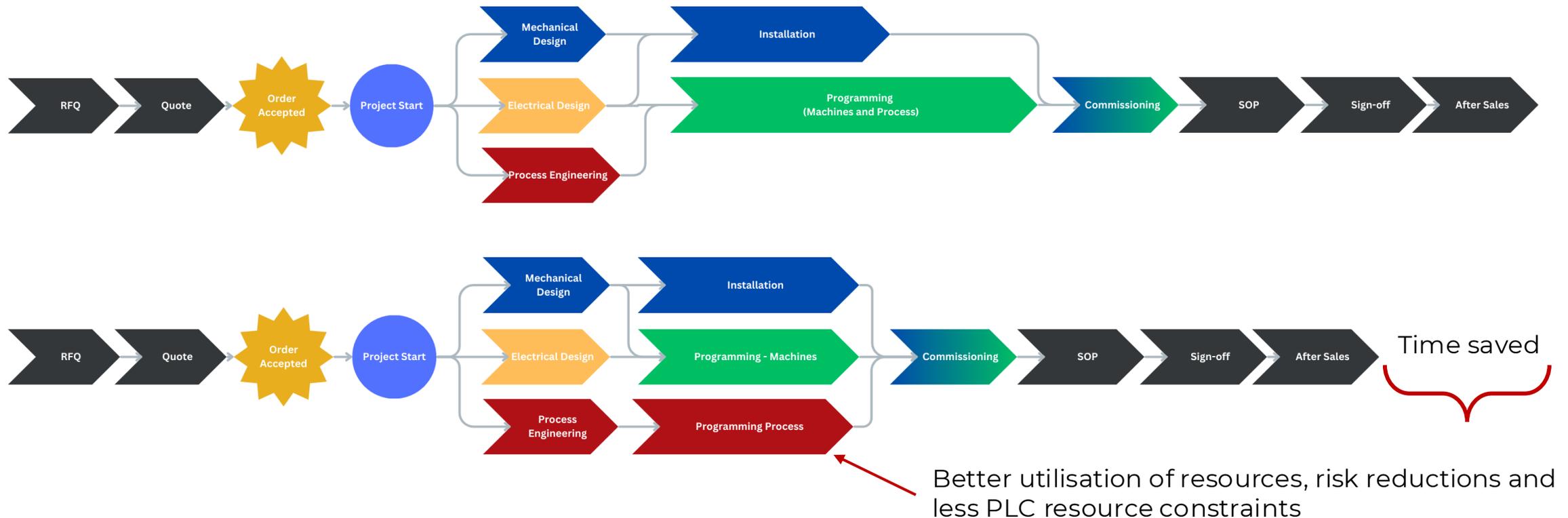
Since the configuration panel is web-based, experts from any location can log onto the system to monitor or make or suggest process improvements.



No-Code PROCESS Setup

Enabling parallel work saves time and reduces risk

By removing the process configuration and programming from the PLC, the process task can run in parallel to the PLC commissioning. This dramatically speeds up commissioning.



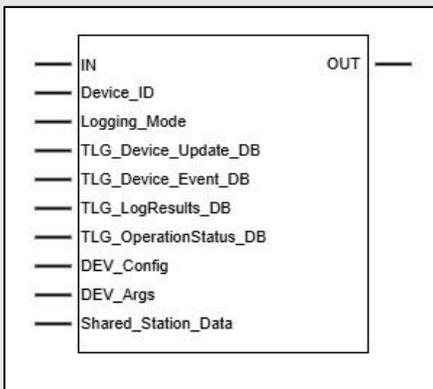
No-Code PROCESS Setup

Changes without stoppage

1

Device integration

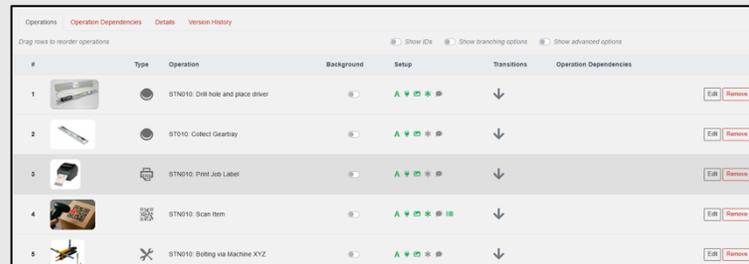
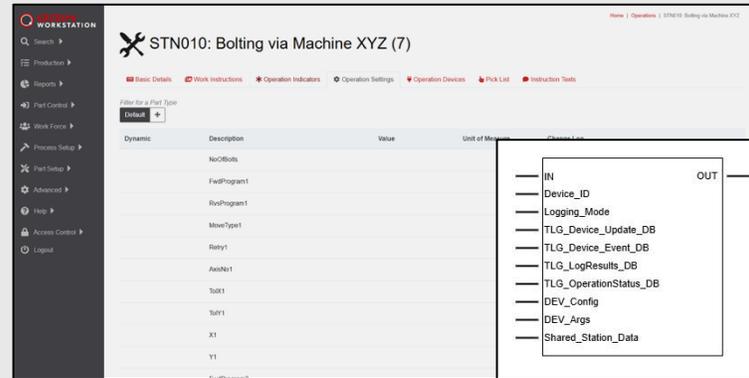
ODIN Workstation device is added and a premade function block is added to the PLC



2

Operational Data

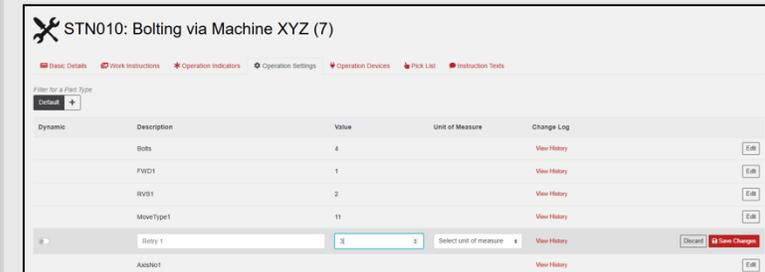
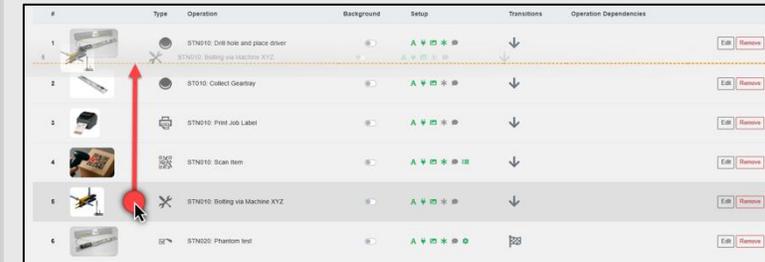
Each time the operation is called, OWS will provide the needed parameters to the PLC



3

Quick Changes

If a new sequence or parameter data is required, updates can quickly be done in the no-code environment (no recompile needed!)



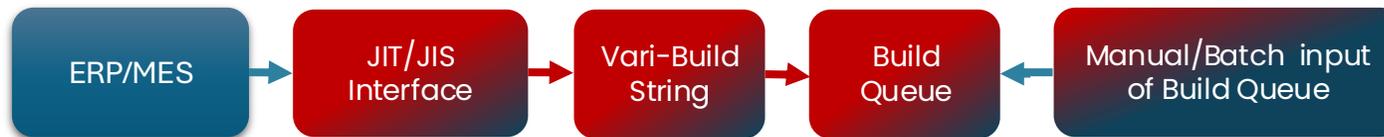
Unsure about a change?
OWS has built in versioning control and changes can quickly be reverted



JIT/JIS **MULTI-PRODUCT** Assembly

Improves competitiveness by increasing flexibility
Additional revenue streams

Our multi-product assembly feature allows flexible sequencing of production lines in batch, just-in-sequence, or just-in-time modes, with integration to ERP systems or standalone operation. This flexibility empowers customers to build various products in any sequence, adapting to diverse production requirements.



Seating module



Morning shift

Fuel Cell

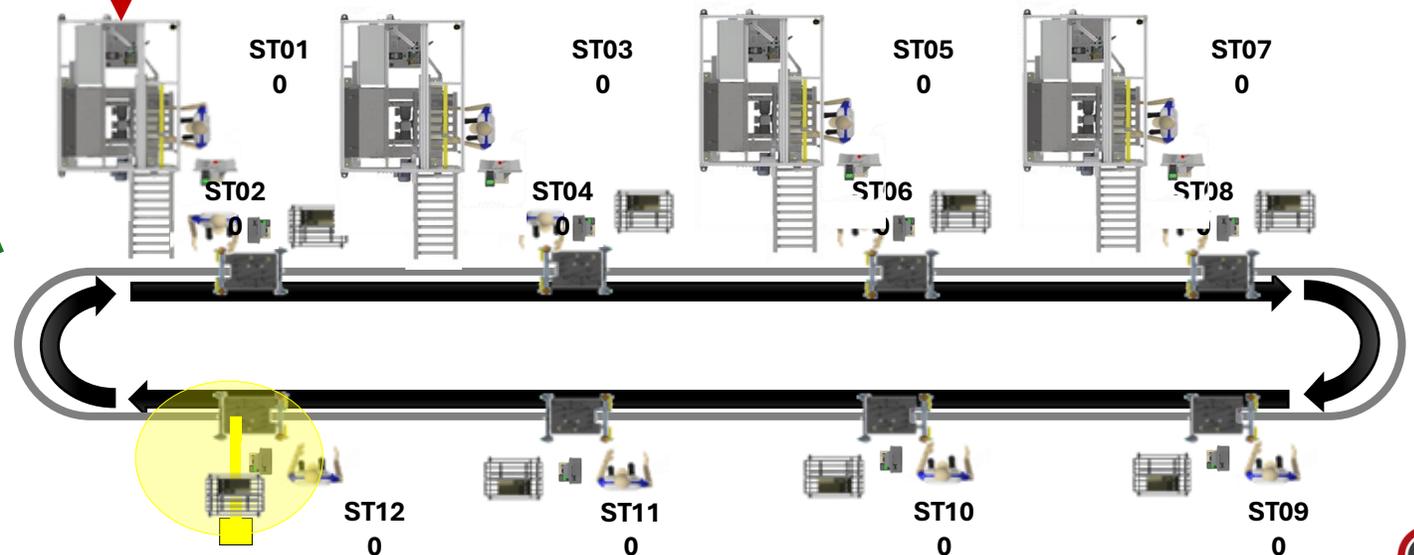


Afternoon shift

Exhaust



Night shift



Assembling multiple products on a common production line
Improves competitiveness by allowing for flexible production lines where manufacturers can build unlimited part types or variants (hardware/tooling depending) on the same production line using shared infrastructure, saving costs



Out of Process **SCHEDULED** Tasks

Improves competitiveness by increasing flexibility
Additional revenue streams

“The Scheduler enhances production efficiency by automating and managing critical out-of-sequence tasks, ensuring compliance, and providing the ability to halt production if necessary for safety and quality.”

Task Management:

Schedules and tracks out-of-sequence tasks like station cleaning (5S), equipment verification, and logistics replenishment based on production milestones.

Production Optimization:

Ensures smooth workflow by managing tasks that are critical but not part of the regular assembly process.

Flexibility:

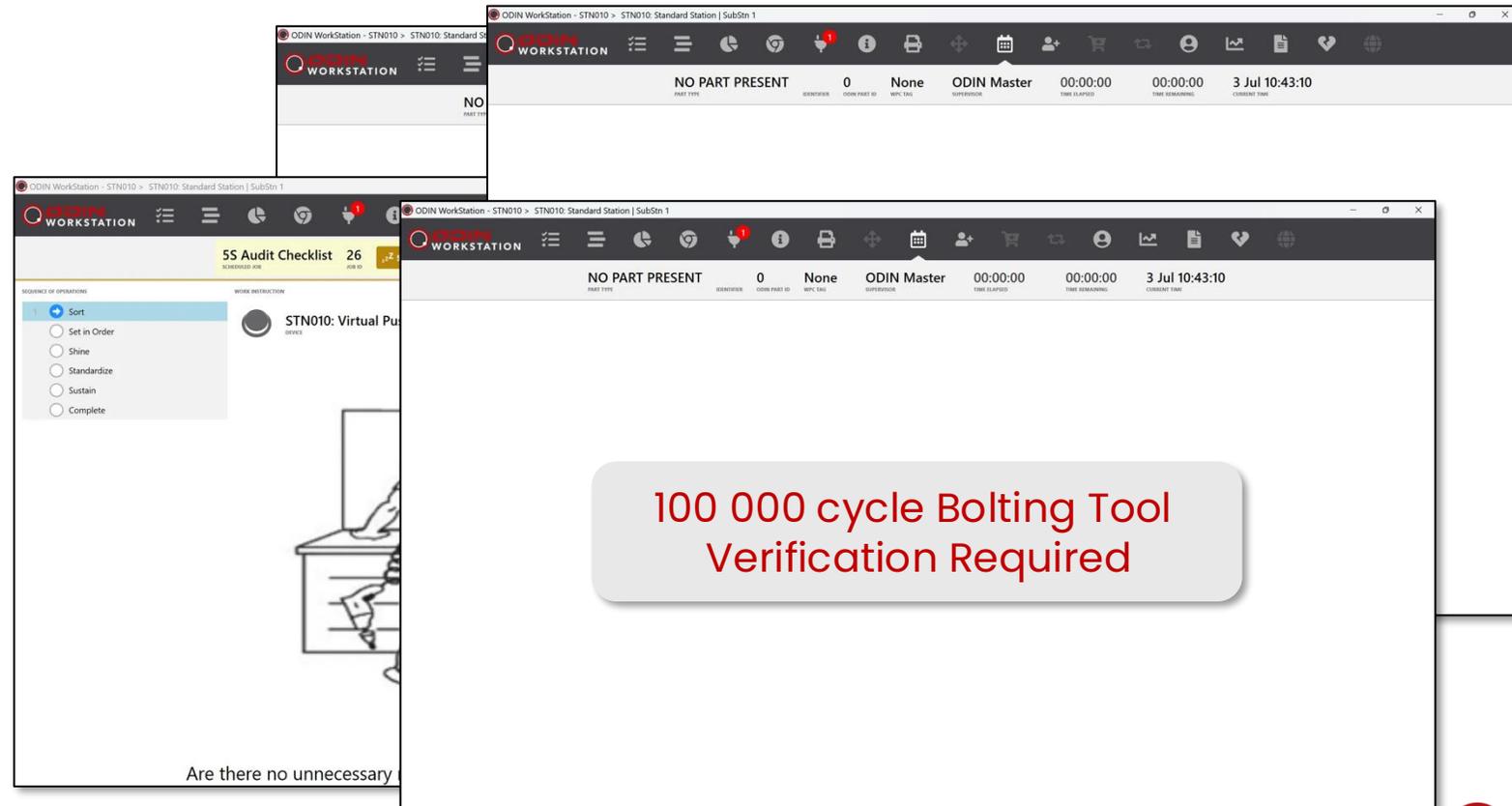
Adapts to production demands by scheduling necessary tasks based on real-time production data.

Efficiency:

Automates and schedules tasks to minimize disruptions in the assembly process.

Production Control:

If tasks are not performed, the system can halt the production line, ensuring compliance and safety.



**100 000 cycle Bolting Tool
Verification Required**



End of Line **INSPECTION** App

Enhanced Efficiency: Streamlines inspections and consolidates data, reducing time for fault finding and root cause analysis
Improved Traceability: Ensures complete documentation and accuracy, enhancing quality control and customer satisfaction

“Our end-of-line quality inspection app digitizes traditional inspections with a tablet-based system, providing predefined checks and complete traceability through images. It integrates with assembly line data, consolidating information into one database for faster fault finding and root cause analysis.”

App-based Mobility:

Quality inspectors can move around the product and capture images from difficult angles.

Digital Recording:

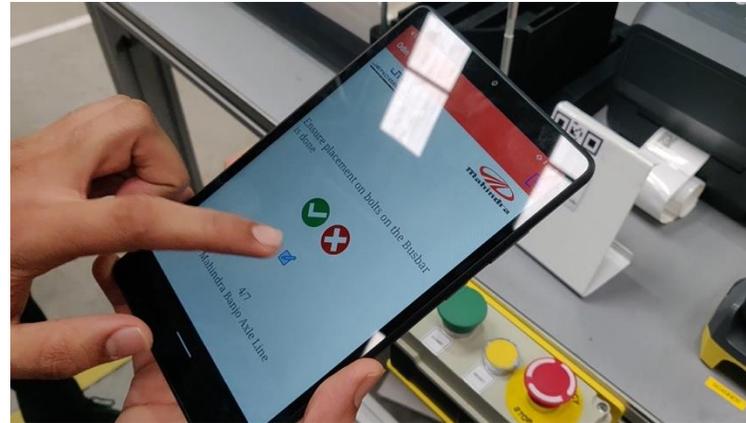
Automatically digitises inspection steps, streamlining data collection and analysis.

Part History Report Integration:

Includes each inspection step in the part history report, enhancing product genealogy.

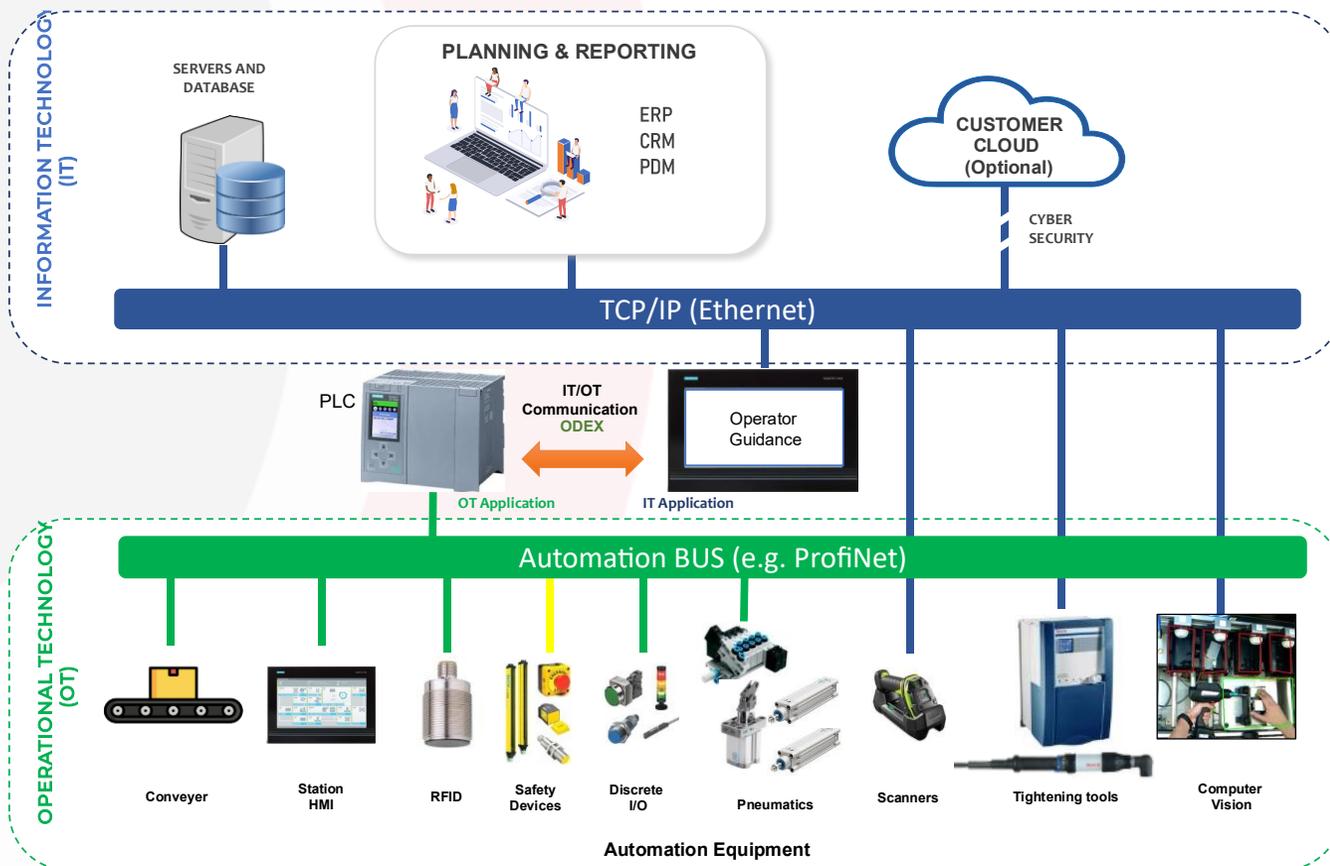
Variant-specific Checks:

Customises inspection steps for specific variants using the Odin Workstation configuration tool.



Deep **HARDWARE** Integration

Controls engineers can focus on programming the automation and safety of the machine(s).
ODIN Workstation takes care of the rest - Part tracking, data logging, variant management, reporting, product routing
Simplified setup and configuration of hardware **reduces time and cost to program and commission assembly lines**



Basic Hardware connection:

- Barcode scanner
- Bolting tools (TCP/IP)
- Printer
- Manual data entry
- Pick to Light
- Overall part buyoff

Advanced Hardware connection:

- PLC integration
- Automatic (robotic) Stations
- Tool position control

Custom Hardware Integrator: as part of a service the ODIN team can develop custom hardware interfaces and controls

Smart Analytics for **DATA-DRIVEN** decisions

Reduced time to access production data
Intuitive interface ensuring **data is understood**

Production Efficiency Dashboard

- Live Production Dashboard
- Production Report
- Production by Variant
- First time through analysis

Equipment Insights

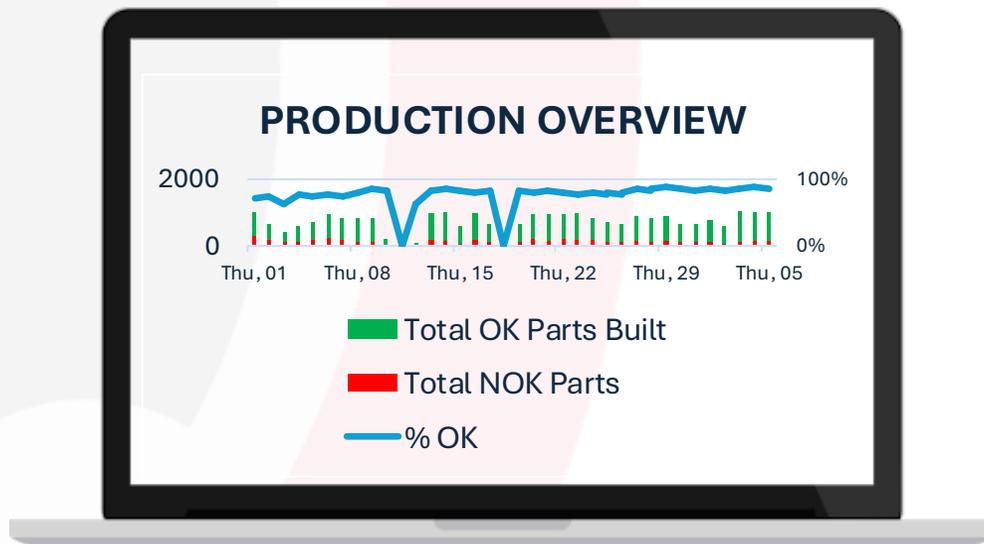
- Station Comparison Report
- Station Report
- Station Cycle time report

Quality Dashboard

- OK/NOK tracking
- LIVE CPK Analysis and Trend

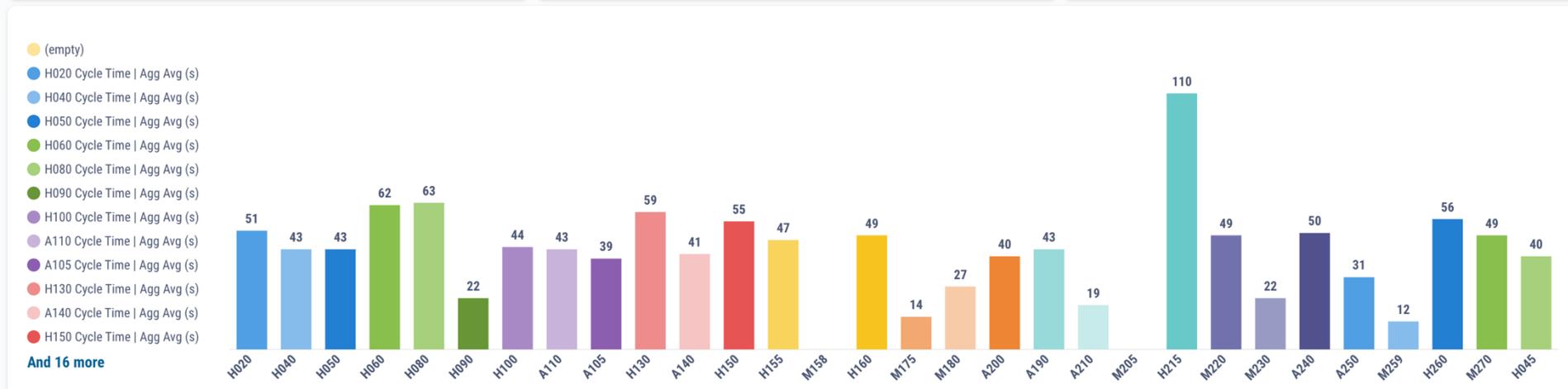
Engagement

- Operator performance dashboard
- Incl Operations trend analysis

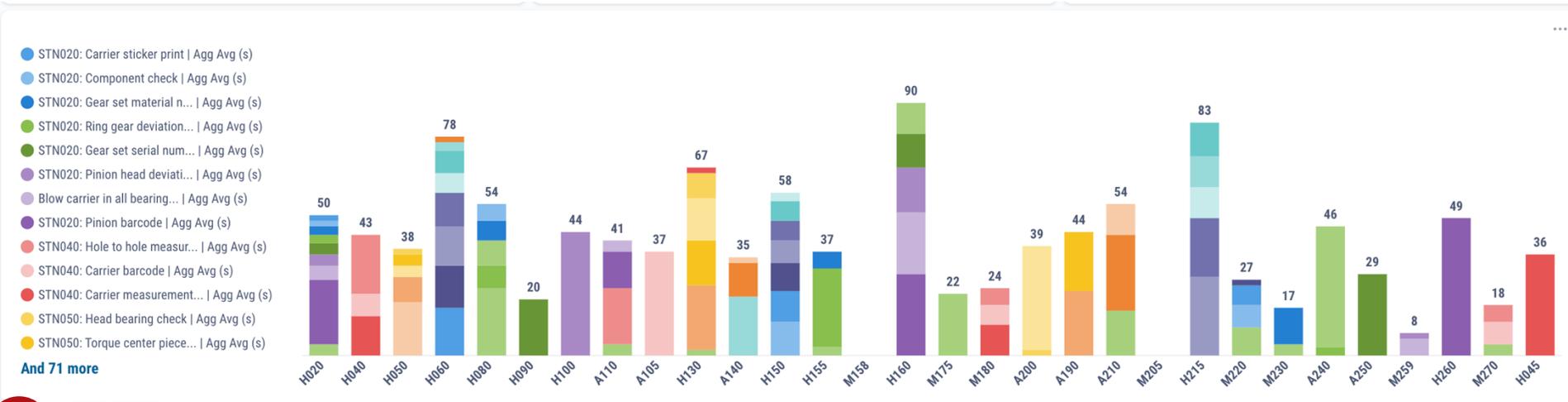


Smart Analytics allows **process engineers** to spend more time solving problems rather than identifying them.

Duration Index * **CycleTime** Zone * **P703 Centre Section Assembly** Station **T** Shift **T** Part Type **T** Date Range | Resolution * **7 Days | Day** To Shift Date **September 20, 2024**



The height of each bar represents the average **CYCLE TIME** of each station.



Each colour in the bar chart represents the **AVG OPERATION** time of a specific station



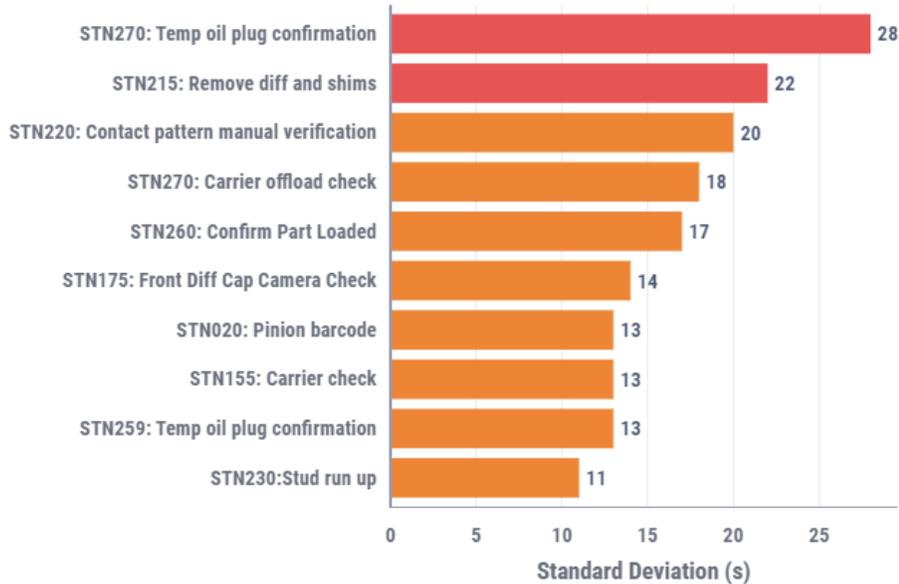
Smart Analytics allows **process engineers** to spend more time solving problems rather than identifying them.

GHOST BOTTLENECKS

Operations with the **least stable cycle times** create "ghost bottlenecks." These operations are shown at the top of the chart, prioritizing where process engineers should focus their attention.

Top 10: Least Stable Processes

● Unstable Process, High Variability ● Unstable Process, Medium Variability

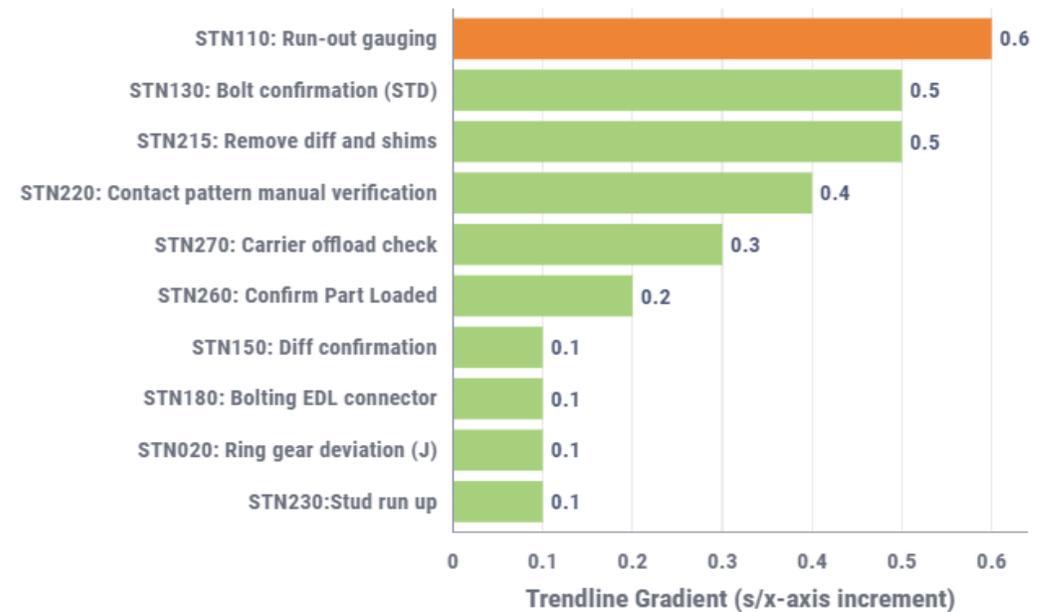


FUTURE BOTTLENECKS

Trending processes show the operations that are tending slower. This helps identify future bottlenecks.

Top 10: Trending Processes

● Decline ● No Trend



Reducing risk and saving time with Live Cpk analysis on 1000+ quality parameters

A live CPK analysis is performed on the last 50 operation results. The table is ordered to show the worst-performing results at the top. This significantly reduces the time quality engineers spend performing CPK studies. This enables engineers to spend more time solving quality problems.

Cpk Analysis

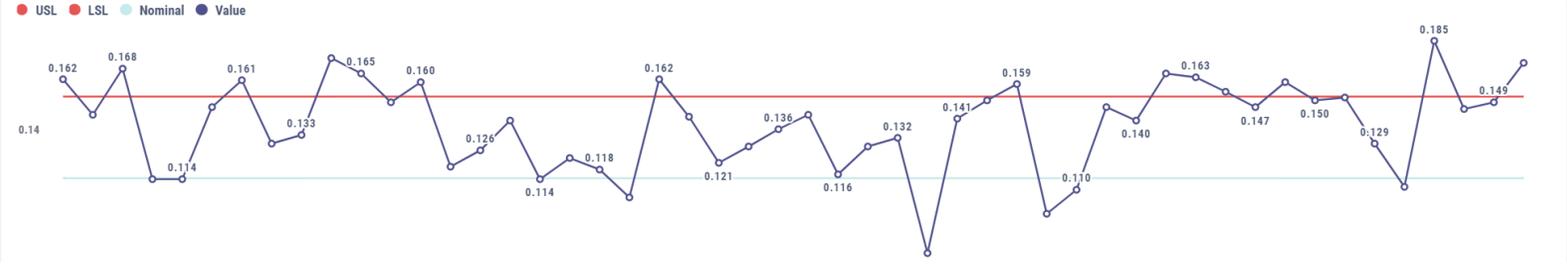
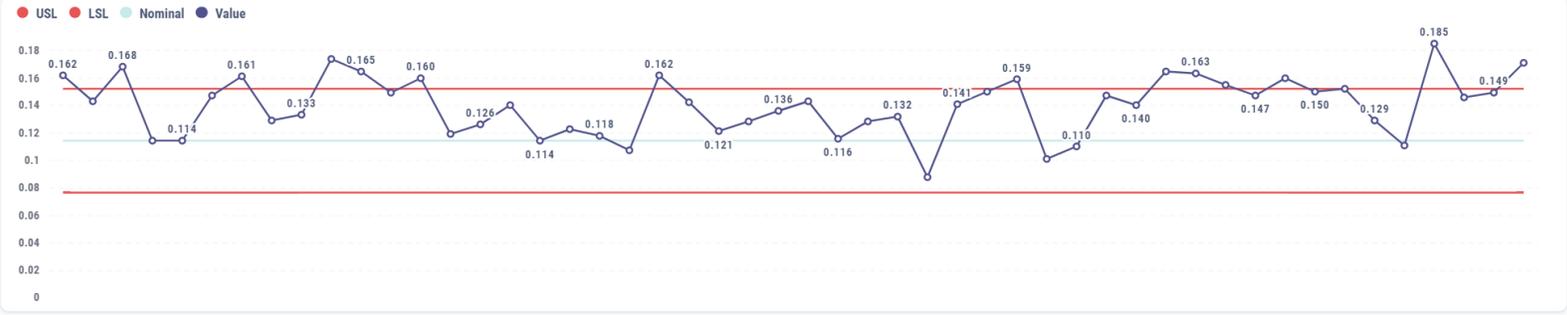
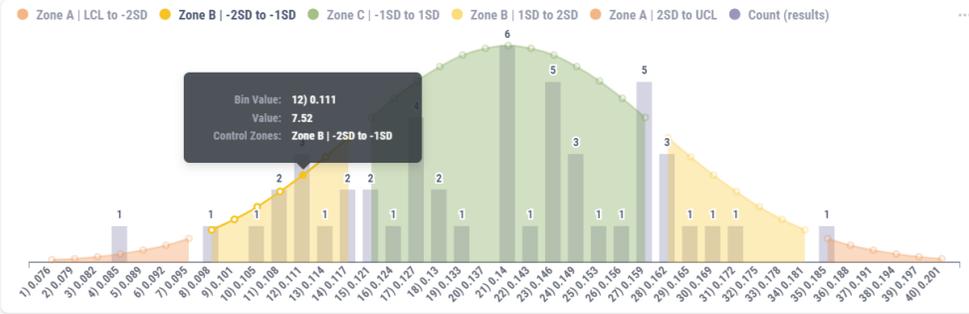
Status	Station	Part Type	Operation Process	Number of Results	Average	LSL	USL	Tolerance	Standard Deviation	3 x Standard Deviation	6 x Standard Deviation	Cp	Cpk	Comment
●	A200	M220_EDL_C_CVJ	STN200: Backlash & gear ratio ga... STN200: 360 Degree avg backlash (mm) Value	50	0.14	0.076	0.15	0.076	0.021	0.064	0.13	0.6	0.2	Not Capable
●	A200	M220_EDL_D_CVJ	STN200: Backlash & gear ratio ga... STN200: Backlash segment 1 (mm) Value	50	0.13	0.051	0.15	0.1	0.036	0.11	0.22	0.47	0.21	Not Capable
●	A200	M220_EDL_D_UJ	STN200: Backlash & gear ratio ga... STN200: Backlash segment 3 (mm) Value	50	0.13	0.051	0.15	0.1	0.033	0.099	0.2	0.51	0.23	Not Capable
●	A200	M220_EDL_B_CVJ	STN200: Backlash & gear ratio ga... STN200: Backlash segment 2 (mm) Value	50	0.13	0.076	0.15	0.076	0.028	0.084	0.17	0.46	0.23	Not Capable
●	A200	M220_EDL_B_CVJ	STN200: Backlash & gear ratio ga... STN200: Backlash segment 3 (mm) Value	50	0.13	0.051	0.15	0.1	0.034	0.1	0.2	0.5	0.23	Not Capable
●	A200	M220_EDL_D_CVJ	STN200: Backlash & gear ratio ga... STN200: Backlash segment 2 (mm) Value	50	0.13	0.051	0.15	0.1	0.03	0.089	0.18	0.57	0.24	Not Capable
●	A200	M220_EDL_B_CVJ	STN200: Backlash & gear ratio ga... STN200: Backlash segment 1 (mm) Value	50	0.13	0.051	0.15	0.1	0.032	0.095	0.19	0.53	0.25	Not Capable
●	A200	M220_EDL_D_CVJ	STN200: Backlash & gear ratio ga... STN200: Backlash segment 3 (mm) Value	50	0.13	0.051	0.15	0.1	0.033	0.098	0.2	0.52	0.26	Not Capable
●	A200	M220_EDL_D_CVJ	STN200: Backlash & gear ratio ga... STN200: 360 Degree avg backlash (mm) Value	50	0.13	0.051	0.15	0.1	0.03	0.089	0.18	0.57	0.26	Not Capable
●	A200	M220_EDL_C_CVJ	STN200: Backlash & gear ratio ga... STN200: 360 Degree min backlash (mm) Value	50	0.099	0.076	0.15	0.076	0.026	0.078	0.16	0.49	0.29	Not Capable
●	A200	M220_EDL_D_UJ	STN200: Backlash & gear ratio ga... STN200: Backlash segment 2 (mm) Value	50	0.12	0.051	0.15	0.1	0.035	0.11	0.21	0.48	0.3	Not Capable
●	A200	M220_EDL_B_CVJ	STN200: Backlash & gear ratio ga... STN200: Backlash segment 1 (mm) Value	50	0.13	0.076	0.15	0.076	0.023	0.068	0.14	0.56	0.31	Not Capable



Live detailed Cpk analysis within seconds

REPORT FOR PROCESS STN200: Backlash & gear ratio ga... | STN200: 360 Degree avg backlash (mm) Value

Process STN200: Backlash & gear ratio ga...
 | STN200: 360 Degree avg backlash (mm) Value
Station A200
Part Type M220_EDL_C_CVJ
Number of Results 50
Average 0.14
LSL | USL 0.076 | 0.152
LCL | UCL 0.076 | 0.204
Tolerance 0.076
Standard Deviation 0.021
3 x Standard Deviation 0.064
6 x Standard Deviation 0.13
Cp 0.6
Cpk 0.2
Cpk Commentary Not Capable
Warnings Empty



Equip operators with the **right data** to improve your operations from the **bottom up**.



Each operator is provided with their performance analytics and statistics

Parts Built
Leaderboard

Details of days worked, and
operations performed

Detailed analysis of operations that are being
performed faster and slower



Let's Discuss Your Line



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