CASESTUDY

## MACHINE CONDITION MONITORING



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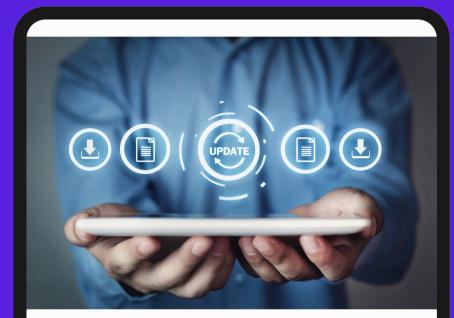


#### Prologue

Our client is a leading enterprise specializing in digital transformation solutions for businesses of all sizes. Their expertise lies in developing innovative technologies that streamline operations and enhance efficiency. Facing the challenges of modernization and automation, Electrono Solutions sought to integrate Artificial Intelligence (AI) into their operations for real-time decision-making and intelligent solutions deployment.



### **Obstacle confronted**



## Lack of real-time insights

Traditional data analysis fell short in delivering real-time insights on machine performance.

# INTEGRATION

## Integration complexities

Integration challenges arose from diverse CNC controllers and sensor data, hindered by compatibility issues.



## Manual data validation

Manual data validation introduced errors and delays in decision-making processes.





## Limited actionable intelligence

Existing systems lacked actionable intelligence, hindering optimization and proactive fault detection.

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Production ~	Production Dashboard							
	Date : Shift Line	Machine						
OEE Doshboord	29-02-2024 🗖 General SMDDC	MCV-450	Apply	_				
Shift/Day Summary	ACTUAL / TARGET (PARTS)	OEE (%)	SLOT TIME(HH:MM)	DOWNTIME(%)	REWORK / REJECTION (PARTS)	REASON CODES (MIN)		
☐ Machine Health ∨			00.00 10.00	100				
🗅 Maintainance 🗸 🗸	0/6	0	09:00 - 10:00	100	0	UNALLOCATED : 60		
Work Flow Management								
Inventory Management ~	0/6	0	10:00 - 11:00	100	0	UNALLOCATED : 60		
■ Workorder Management~		0			o	UNALLOCATED : 60		
Tool Usage Details 🛛 🗸	0/6		11:00 - 12:00	100				
		0	12:00 - 13:00	0	0			
Notifications ~	0/6	U	12:00 - 13:00	0	U U			
🗅 User Management 🗸	0/0	0	13:00 - 14:00	0	0			
	0/0	O	14:00 - 15:00	O	O			
	0/0	0	15:00 - 16:00	0	O			
	0/0	0	16:00 - 17:00	O	0			

#### Resolutions

- DataAct seamlessly integrates with various CNC controllers, enabling comprehensive data aggregation.
- Real-time monitoring identifies machine issues promptly for proactive measures.
- Automated data validation minimizes errors, ensuring accurate insights.
- DataAct delivers actionable engineering intelligence for optimized operations.

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## **Benefits**

01	Enhanced operational efficiency
02	Proactive maintenance
03	Improved decision-making
04	Scalability and flexibility

N MENU	Shopfloor Layout
Production ~	MACHINE HEALTH > SHOPFLOOR LAYOUT
Machine Health × Parameter Health Limit Settings Signal History MTTR & MTBF	SLTL Stallion-200
	Robot
Maintainance ~	ACF VTC-800
Work Flow Management	MON0-200
Inventory Management $  imes $	MCV-450
Workorder Management~	Mazak-H400
Tool Usage Details 🛛 🗸	
ORR	
Notifications ~	
User Management 🛛 🗸	
	© 2022 E-Forcast
IN MENU	Signal Condition Monitoring
Production ~	MO100-200 ApJAy
Machine Hea/Ib 🗸 🗸 🗸	MOX-420 MOX-200 ESSURE LEVEL VILPATION
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Work Flow Management	Stringuna35 VTC-930
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Noffications 🗸 🗸	
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Production of the second product





 STATUS
 COLOR CODE

 OPERATE
 Image: Color Code

 STOP
 Image: Color Code

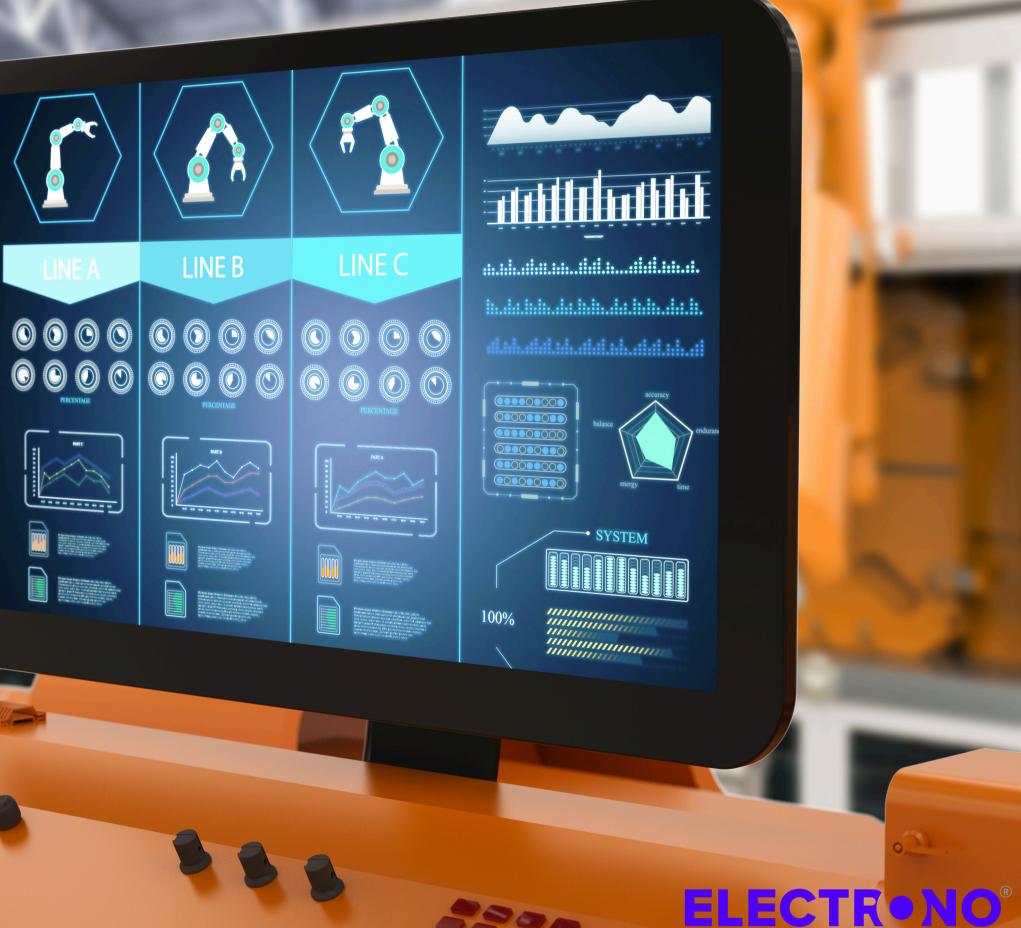
 ALARM
 Image: Color Code

 DISCONNECT
 Image: Color Code



## Conclusion

DataAct 's implementation has empowered Electrono Solutions to optimize operations, minimize downtime, and make informed decisions, positioning them for sustained success in the era of IIOT.



## **Get In Touch**

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