MindSphere Partner Use Case

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CNC Process Improvement and Preventative Maintenance

CNC process improvement and predictive maintenance

Summary
CNC machines are essential to the die casting process in the automotive industry. With many manufacturers facing skilled human resource shortages, finding ways to improve yields from production can be a challenge.

At the heart of process improvement is improving on the CNC operation by comparing to similar or identical machining processes on other CNC machines. This comparison can also be done by part type to show where optimizations can be made in the CNC part programs. As success rates increase, productivity increases at a quicker ratio. With the benefit of machine learning and actionable recommendations, customers can dramatically reduce trial and error methods within CNC machining operations. At the same time, predictive machine maintenance drives better uptime for your operations.

MindSphere AI combined with CNC machining data provides correlation and answers

This solution use case, provided by Patti Engineering on the MindSphere platform, enables MindSphere-based algorithms and machine learning to find patterns in CNC machining data that lead to success and an optimized machining process.

By focusing on improving first time success and yield ratios in the production process, this approach drives immediate value through effective and actionable recommendations for customers. With ongoing process recommendations, higher throughput levels are possible with CNC machines.

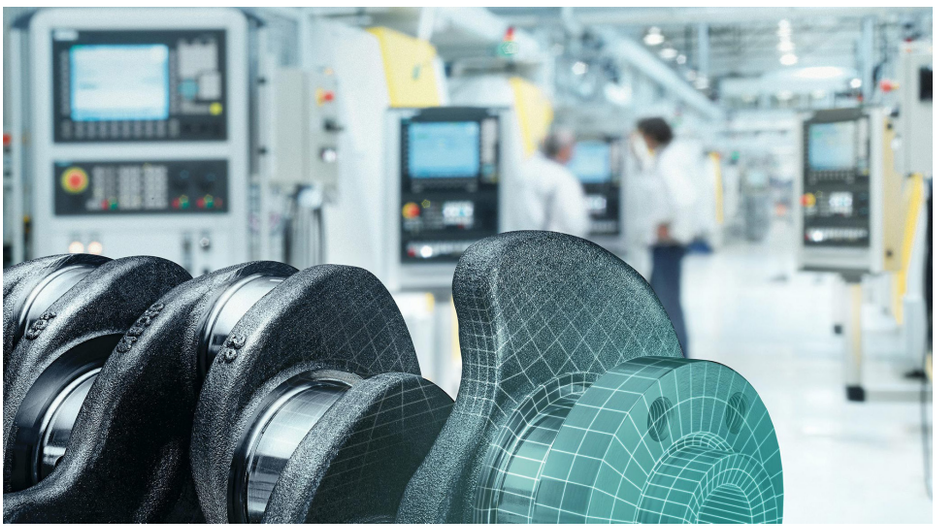
Data driven insights improve predictive maintenance cycles for your CNC machines, driving improved uptime for production lines. Predictive maintenance enables better staffing and part stocking decisions helping reduce costs.

Benefits

- Visualize and track core data from your CNC machining processes.
- Improve the accuracy of maintenance schedules, staffing, and parts.
- Give your staff actionable steps to improve CNC processes.
- Reduce costs, improve production throughput and drive better first-time results from CNC operations.

Features

- Peformance data and recommendations based on CNC and related machine data.
- Analytic algorithms are trained to your specific CNC machining operations.
- Integrated reporting provides a holistic view of production conditions and results.
- Integration with cloud platforms, CNC related machine data.



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MindSphere is the cloud-based, open IoT operating system from Siemens that connects real things to the digital world, and enables powerful industry applications and digital services to drive business success. MindSphere's open Platform as a Service (PaaS) enables a rich partner ecosystem to develop and deliver new applications.

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