

'Our mission is to help you succeed.'

Productive Solutions

CNC RETROFITTING

AUTOMATION SYSTEMS

PRODUCTION MONITORING



Turn Up Your
Production
Today



CNC RETROFITTING

Why Retrofit?

Do you have old machines that are mechanically sound but have old and frayed wires and outdated control systems that you can't find spare parts for? If so, then a retrofit might be the ideal solution to your problems. MasterCore gets rid of old wiring and outdated parts and replaces them with the latest state-of-the-art CNC, digital drives & motors, and operator interface. We provide a full set of electrical prints, manuals, and operator and programmer training if necessary. MasterCore understands that people fear change, but you can be assured that when our system is in place, your employees will find it user-friendly and much more reliable than your current system.





Allen-Bradley

The MasterCore Advantage

MasterCore has extensive experience with electrical & mechanical engineering, PLC & CNC programming, HMI development, and servo optimization & tuning. These are the skills needed to perform successful retrofits 100% of the time. And in most cases, we can integrate our solution right at your facility preventing the need for removing the machine and incurring unnecessary rigging cost and down-time. These are just a few of the many advantages you have when working with MasterCore.



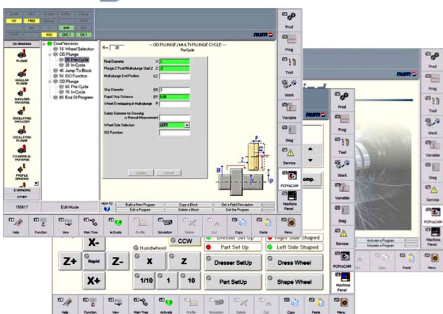
COMPLETE 'OFF THE SHELF' SOLUTIONS

Why NUM?

NUM specializes in complete solutions for niche markets giving them the upper edge when it comes to any of the processes presented below. They have spent decades refining their operator interface to be the most efficient and user-friendly on the market. The operator does not have to use ISO programming; he or she simply fills in the data fields presented by the program. This innovative software paired with NUM's world class digital CNC & servo system is the clear choice for many retrofit projects.

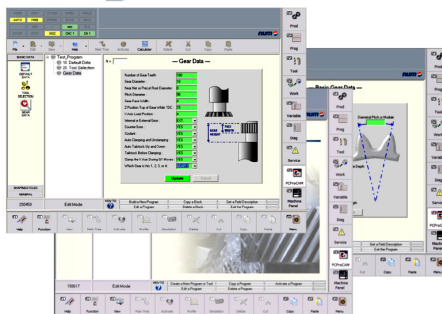
Cylindrical & Surface Grinding

The cylindrical grinding package includes OD/ID grind cycles for 2-Axis (X/Z) grinding machines and has inclined axis capability by tilting the grinding head or the table. The dressing station can be table-mounted or rear-positioned to accommodate all existing machines. Other capabilities include wheel dressing with single/double point or roller dresser and profile grinding.

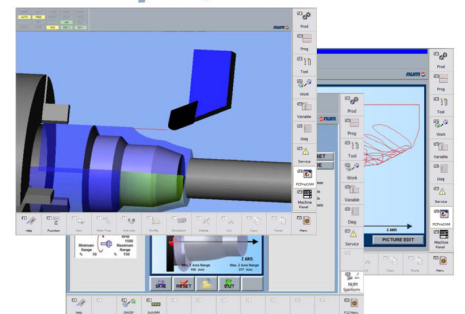
Gear Hobbing, Shaping & Grinding

The NUM CNC system is perfectly suited for producing precision industrial gears requiring both dimensional accuracy and high-quality surface finish. NUMgear includes packages for gear hobbing, shaping and grinding machines (both form wheel or threaded wheel). Cycles and pages can be customized by MasterCore or by the NUM Engineering Team, if required.

Metal Spinning

The core of NUMspinform is a Windows based graphical operator interface software package. It includes features such as: joystick and servo-hydraulic interface, record and playback, 2D safety zone, on-the-fly handwheel correction and offline programming and editing of the safety zone and the spin cycle via a graphical interface feature called NUM SpinCAM.

AUTOMATION SYSTEMS

Why Automate?

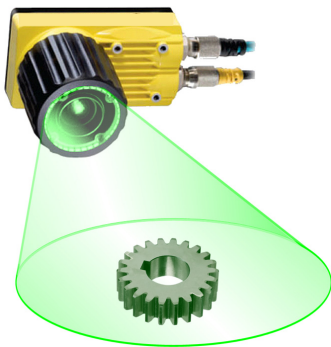
Robots are quickly becoming common place in any manufacturing facility and it is more economical than ever to have them integrated into your process. In most cases the cost of adding robots and automation will pay for itself within a year or so.

End of Arm Tooling (EOAT)

MasterCore specializes in custom designed, robustly engineered and constructed end of arm tooling (EOAT), grippers and end effectors, for a wide range of robotic automation applications. Every EOAT is optimally designed for increased speed and accuracy.

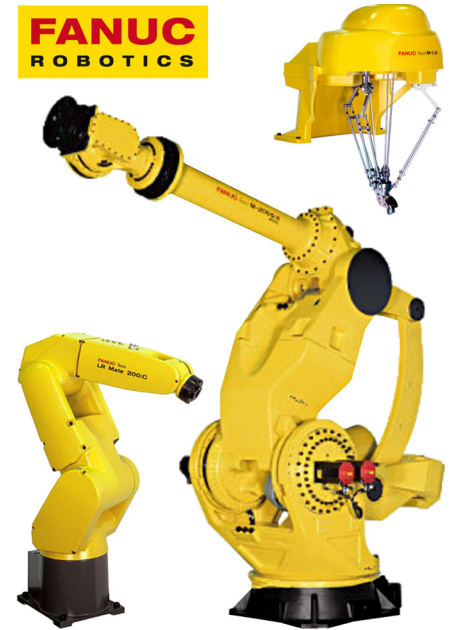
Vision & Gauging Systems

Production and process errors can cause down time and compromise product quality which can both be very costly. With vision inspection systems in place, process and part verification, measurements, and real-time qualifications will drastically reduce down-time and increase product quality. Vision systems can be used in a variety of applications and MasterCore has the expertise to engineer and integrate the entire system.



The MasterCore Advantage

MasterCore will help you determine where automation can be applied and provide a turnkey solution that's affordable and critical to compete in today's economy. From complete automation systems to specific robotic application needs and tooling, our solutions are custom engineered, built and fully integrated into your existing application and process. Besides our knowledge and experience in industrial automation systems, MasterCore has a reputation of listening to our client's needs and building custom automation equipment that fits those needs, on time and on budget. We work with you from concept to completion, providing a fully functional, state-of-the-art, innovative solution and the edge over your competition.



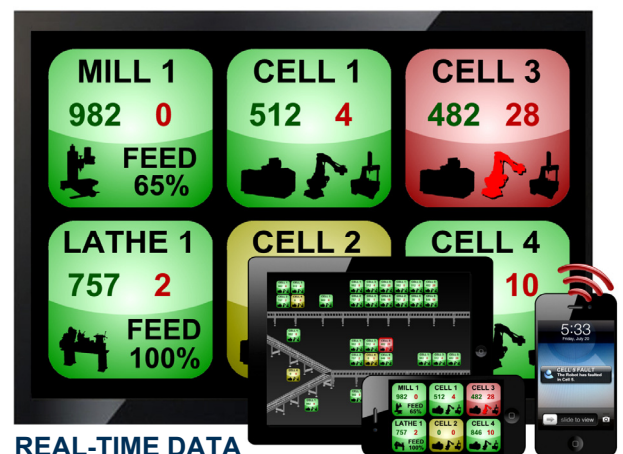
PRODUCTION MONITORING

Why Monitor Production?

Strategic philosophies or practices such as Kaizen, Lean Manufacturing, Six Sigma, Total Quality Management and Continuous Improvement are used by many organizations to help improve processes, drive productivity and maintain a competitive edge in today's ever-increasing global economy. Despite varying concepts, each practice uses Key Performance Indicators (KPIs) to assess, analyze and track manufacturing processes. Some KPIs include but are not limited to; part count (good or bad), reject ratio, rate, target, takt time, overall equipment effectiveness (OEE), feedrate, cycle status and machine uptime/downtime. These performance measurements are commonly used to evaluate success, identify bottlenecks, and increase overall production throughput.

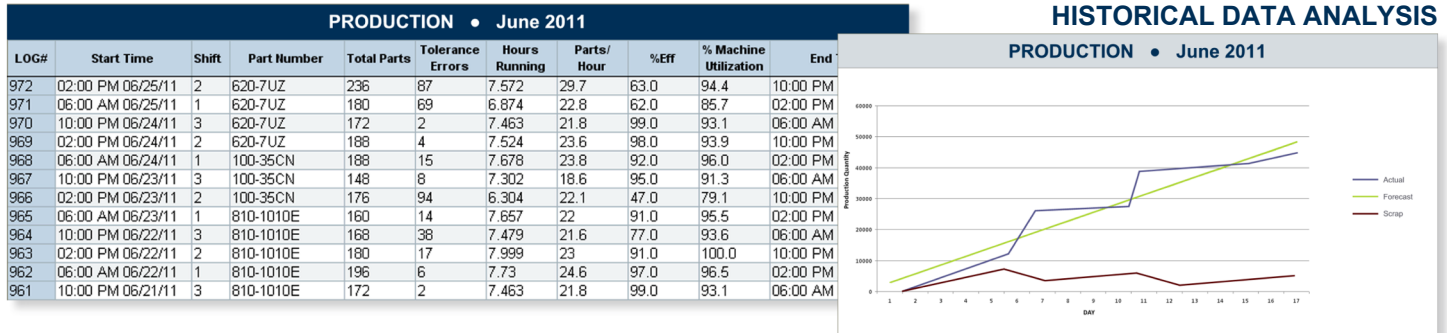
Key Features

Once MasterCore is connected to your production equipment you can start monitoring production in real-time. Be alerted to faulted machines instantly on your smart phone or from your PC. Real-time machine overviews can be accessed anywhere so that managers can direct maintenance to address priority problems first. In addition to real-time data, each machine will have a record of production statistics for each shift containing all of your KPIs. Quickly determine the performance and efficiency of each shift and individual operators. Keep track of inventory without having to physically count parts. All of the information to maximize production efficiency is right at your finger tips.



The MasterCore Advantage

MasterCore provides turnkey production monitoring solutions for a wide variety of applications. Our extensive experience with CNC retrofitting, CNC & PLC programming, gauging & vision applications, and robotics & automation, provides us with the necessary knowledge to obtain the desired data from these systems. In addition, our knowledge of Windows, Web, and Mobile applications allows us to present the data to you on a broad range of devices. From shop floor marquees to a smart phone thousands of miles away, the data will be displayed on a sleek and intuitive interface that is tailored specifically for your needs.



ENGINEERING & TECHNICAL SERVICES

In addition to providing turnkey solutions for **CNC RETROFITTING**, **AUTOMATION SYSTEMS**, and **PRODUCTION MONITORING**, MasterCore can provide any combination of the following engineering or technical services.

- Project Management
- Fabrication & Integration
- HMIs & Conversationals
- Software Development
- Electrical Panel Build
- Mobile & Web Applications
- Electrical Engineering
- Vision & Gauging Systems
- Windows Applications
- Mechanical Engineering
- CNC & PLC Programming
- Networking & IT

YOUR COMPETITORS ARE ALREADY ADOPTING THE LATEST TECHNOLOGIES. CAN YOU AFFORD NOT TO?



GET STARTED TODAY

Call one of our engineers at 630.470.2397 to discuss any potential applications you may have.



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