Industry 4.0

Utilizing the power of AI/ML, IIoT, merged data, & advanced analytics to take your facility to the next level

hargrove
controls & automation

Today's industrial sites are safer, more accessible, and more productive than ever by utilizing the full advantage of digital transformation and Industry 4.0 technologies. At Hargrove Controls & Automation, we leverage artificial intelligence (AI) and machine learning technologies to improve communication between software systems, gain better visibility into your problems, and improve your asset reliability & maintenance strategies.
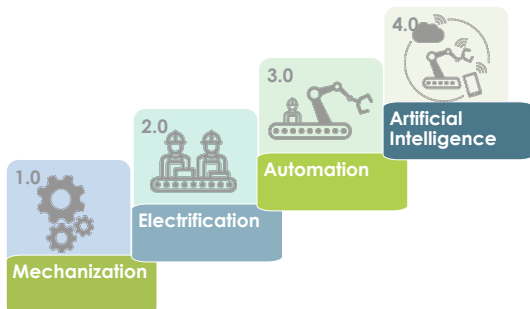
Digitalization Implemented

Hargrove implements best-in-class software solutions from top companies utilizing AI/ML, cloud technologies, augmented reality, and advanced connectivity.

- Process historian implementations and upgrades
- OT network planning and installation
- RAM modeling to calculate Overall Equipment Effectiveness (OEE) with recommendations for process, operations, and maintenance
- APC to further optimize process control
- Multivariate analysis for real-time quality & equipment reliability predictions
- Augmented reality for training & support
- IIoT
- Paper to Glass transitions for your mobile workforce
- Cloud services integration

Industry 4.0

The key to taking full advantage of Industry 4.0 digital transformation is to build a bridge to capture the right data from one system to be shared and accessed by other systems. Even on the plant floor, various automation systems may still have gaps to close to be fully integrated. Industry 3.0 was focused on activities surrounding fully integrated automation systems. This provides the foundation to capture the full benefit of Industry 4.0.

The focus of Industry 4.0 is around connecting the physical world with the digital world, creating digital simulations of physical systems, applying machine learning algorithms to process data, and leveraging business enterprise systems to make informed operational decisions.

Exploratory Questions to Consider

During our initial consultation, Hargrove's Team will listen and work to understand where you are today, what your operational concerns are, and what challenges you face. Some of the typical questions we start with during our discovery process include:

- Where are your pain points (bottlenecks, quality issues, product costs, reliability)?
- Have you already identified missed opportunities (resources, process data, funding, ROI justification)?
- Where are there manual inputs required for reporting?

- What are the business, automation, and maintenance systems in place, and what is required for optimal connectivity?
- Where do you stand today regarding available data, connectivity, advanced analytics, and infrastructure to support robust, secure data processing platforms to launch your Industry 4.0 transition?

Start-to-Finish Custom Solutions

Whether you are interested in fully harnessing digitalization or implementing it on a smaller scale, you must bridge the gaps in your current plant floor automation systems. We are here to help. We develop custom software applications bringing in multiple databases, tying them all together in a single consistent environment, where engineering data used in one platform is now available for use across multiple platforms in the enterprise system. This leveraging of data across multiple platforms provides new capabilities for real-time advanced analytics and decision-making insights not previously possible.

- Data migration
- Digital infrastructure
- Mobile apps
- Processing & monitoring
- Validation & clean up

Secure Networking

Digital transformation creates many business opportunities, but cyber vulnerabilities and safety risks must be addressed. Hargrove cybersecurity, safety experts, and developers, work in tandem to mitigate these inherent risks. Operating within the National Institute of Standards and Technology (NIST) Cybersecurity Framework, we perform work that covers the five core functions of cybersecurity.

From identifying the risk to implementing the protection, Hargrove works with control system engineers, IT/OT specialists, and our on-staff CISSP-certified specialists to ensure that our client sites are safe and secure throughout the information lifecycle.

Earn Real $$$ on Your Investment

All the digitalization technologies we implement for our clients are designed to solve real problems and save you real money.

Whether you are trying to increase productivity on an existing plant, optimize your maintenance activities and expenses, reduce your capital costs for a new build, or make your workforce more efficient, these tools have real and calculable paybacks. Hargrove can help you with project justifications, pilot projects to demonstrate feasibility, and use cases from other project implementations. Start earning today.

Contact Us Today
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