ROBOTIC AUTOMATION: TRANSFORMING YOUR FACILITIES

Partnering with Honeywell & Berkshire Grey

Honeywell

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MANAGEMENT SUMMARY

Overcome the challenges of updating automation within existing facilities.

With the support of trusted partners Honeywell and Berkshire Grey, utilize a staged approach to transform existing material handling systems without giving up site functionality.

Adopt robotic point solutions that are flexible, modular, and can be integrated smoothly with both new and existing infrastructures, ensuring near-term performance gains while retaining long-term adaptability. With proven integration and flexible workflow orchestration Honeywell Momentum WES coupled with cyber security capabilities allows you to deploy labor more effectively, improve order fulfillment accuracy and provide a robust cybersecurity layer.

This approach mitigates risk associated with investing in automation and facilitates and paves the way for a more confident and successful introduction of new technology to existing facilities.

ACHIEVE MORE WITHIN YOUR EXISTING FACILITIES

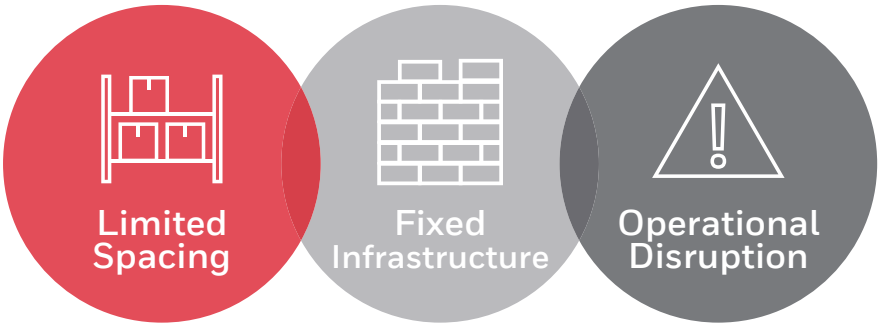
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Overcome the challenges of updating automation within existing facilities.

> **Across industries, the shift towards adding and/or updating automation within existing, or brownfield, facilities is gaining momentum.**

Macroeconomic factors, such as the cost of capital, the impact of COVID-19, and the uncertainty of the market, are fueling a shift away from costly new builds and facility expansions as companies seek to get more from existing infrastructure due to increased risk aversion and capital expense concerns.

Facility operators also face physical and operational constraints that make it difficult to introduce new technology in a brownfield site, such as fixed infrastructure, limited space, and the disruption to current operations. These challenges can make it difficult to introduce new technology and improve performance without fundamentally reinvesting in something entirely new.



Customers are emphasizing and searching for solutions to limit capital expense while still achieving that next incremental level performance in the existing facilities where they operate.



EXAMPLE

Continuously changing market conditions underscore the importance for performant and adaptable automation solutions

A customer may have designed and built a facility for 90% retail and 10% e-Comm. Then due to industry changes, the customer's business is 10% retail and 90% e-Comm but must be conducted out of the same building, with minimal time and investments.

BENEFITS OF PARTNERING WITH HONEYWELL AND BERKSHIRE GREY

Pre-Integrated Solutions

Honeywell and Berkshire Grey offer a comprehensive, end-to-end application for how innovative technology can transform operations, serving customers throughout their lifecycle. This approach mitigates risk associated with investing in automation and facilitates the confident and successful introduction of new technology to existing facilities. The pre-integrated systems deliver cohesive performance, while the ability to phase in robotics solutions can reduce disruption to current operations.

Powerful Technology

Berkshire Grey's technology consists of AI-powered robotic systems that can pick, place, sort, and pack different types of items in various applications. The systems use advanced vision, grasping, and motion planning algorithms to operate with speed, accuracy, and adaptability. With standardized solutions including robotic put walls, robotic sortation, and robotic picking and placing, automate your warehouse with innovative technology, proven across over a decade's worth of production picks in some of the world's toughest warehouses.

Sample customer deployment value-based outcomes include:

- 300% increase in order sortation throughput vs manual put walls.
- $430,000 annual savings per BG put wall vs previous manual approach.
- 85,000-unit daily volume increase in the same footprint vs manual put walls.
- 33% productivity improvement, picking, sorting and packing 1,000s of items per hour.

Sortation solutions, for example, can enable businesses to increase order fulfillment up to 4x and improve container utilization by up to 10% without adding labor. They also lower shipping costs by optimizing package density, resulting in fewer boxes required for transportation and storage, thus providing a network-wide benefit.

Berkshire Grey's technology can handle a wide range of SKUs and 100% of typical break pack SKU assortments. Operating either standalone or integrated with other technologies in the building, they can be fed by traditional material handling systems These systems are designed to integrate smoothly with both new and existing infrastructures, ensuring enhanced flexibility and efficiency.

Modular and Flexible

Honeywell and Berkshire Grey's holistically designed solutions are inherently flexible, with the built-in ability to handle operational changes, providing long-term adaptability to meet evolving needs. With pre-integrated and standardized components, our solutions simplify support, with easy end-

PHASED DEPLOYMENT STRATEGY

Upgrade in stages:

1. Identify problem system such as lack of labor for manual put walls or need for upgraded sortation.
2. Earmark space in the facility for a new system, either existing or by removing a portion of the manual system.
3. Install during off hours and never lose functionality of the system.
4. Enjoy increased throughput and reduced labor.
5. Repeat steps 1-3 as more replacement phases are completed.



Increase order picking efficiency, labor utilization, and deliver to your customers faster.

user training, predictable maintenance, and streamlined troubleshooting. Whether you are looking to repurpose an underutilized mezzanine, replace a manual put wall, or get more sorting efficiency per square foot, our designs are tailored to fit into your operational environment.

Berkshire Grey robotic sortation systems, for example, feature dual induction modes—manual and fully robotic—catering to different operational needs, such as retail and lights-out automation. They can adapt to various shipping container sizes and throughputs, accommodating customer-specific requirements. This omni-channel solution supports both e-commerce and retail needs, handling a wide range of item sizes and types.



Robotic shuttle sortation enables operations to support the needs of e-commerce to retail clients, handling a wide range of item sizes and types.

Enterprise Software & Cybersecurity

Honeywell and Berkshire Grey emphasize two crucial but often overlooked aspects of automation: device interoperability and cybersecurity.

In today's diverse automation landscape, customers often want different robotic systems to interact seamlessly across across their facility. Instead of integrating each system directly into your WMS, Honeywell provides a device-agnostic software layer that abstracts from the proprietary interfaces of any robotic system while providing consistent mission execution. This approach lessens connection complexities, reduces costs, and promotes system uptime.

"As companies seek to deploy more advanced automation solutions, including robotics systems that often utilize a fusion of machine vision, sensors, and advanced AI software that operates both embedded within the mobile robots controlling their operation, but also communicates horizontally in the fleet of robots controlling their interaction with each other, as well as with external cloud systems, has opened many new network connections and vulnerabilities within distribution centers that customers may not be fully appreciating," says Paul Griswold, chief product officer for cybersecurity at Honeywell. "Traditional security deployed by enterprise IT can often fall short in assuring that these OT and IoT environments are properly secured and managed." [1]

Cybersecurity is another critical yet frequently neglected area. Advanced robotic systems with artificial intelligence and network connectivity can inadvertently expose new cybersecurity risks.

As time-tested enterprise-ready providers, implementing modern warehouse automation with Berkshire Grey and Honeywell also means peace of mind for your data and security. With industry-leading protocols and a commitment to leading-edge security practices, we are committed to helping you transform your operational capabilities while maintaining the highest level of integrity and confidentiality for your organization's software and data.

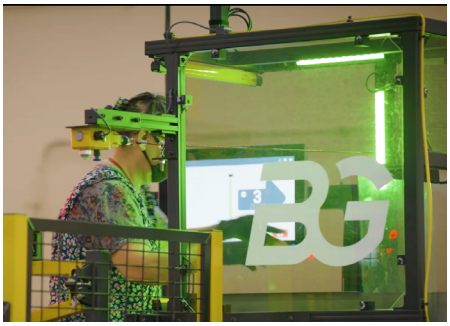
1. https://www.controlglobal.com

Implementation

Honeywell and Berkshire Grey will help you transition to advanced automation with confidence, leveraging optional phased rollouts tailored to your operational needs. Our approach allows for the gradual replacement of outdated systems, significantly reducing disruption by allowing new systems to function in parallel with existing processes during the integration phase.

For example, consider a scenario where a customer plans to modernize their manual put walls by replacing them with Berkshire Grey automated technology. In a large-scale deployment, one approach could be to phase go-live of the new robotic put walls, known for their high density and efficient throughput. With typical installation in only weeks, and a small footprint required, experience immediate performance enhancements without sacrificing your day-to-day operations and fulfilment requirements. Following this, the remaining manual units can be methodically decommissioned, until full deployment is achieved and value for your business realized.

For robotic sortation solutions, minimal training is required; operators reach full productivity within one shift. With manual induction, the maintenance staff enjoys the ease and reliability of the system, which becomes pride of the operation. The system integrates seamlessly with existing staff and infrastructure, enhancing maintainability.



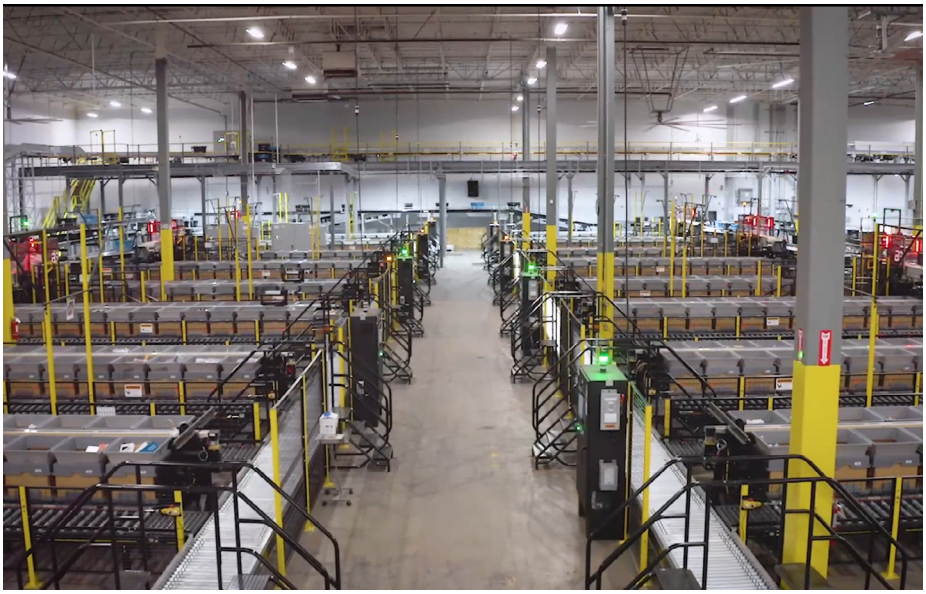
Induction can be performed manually or by robotic arm.

DELIVERING BETTER OUTCOMES

In a world where the only constant is change, choosing the right partner for your automation needs is more than just a decision – it's a step towards the future of unparalleled efficiency and growth. Honeywell and Berkshire Grey stand together, ready to help take your operations to the next level.

By investing in modular and flexible solutions, you can adapt to industry demands and rest assured your growth is not constrained by physical space or outdated systems. By working through Honeywell, your trusted solution integrator, to buy and implement Berkshire Grey's AI-enabled robotic automation, you gain access to specialized skills and knowledge. This collaboration ensures your automation solutions are not only purchased but also strategically implemented to sync with your operations, delivering a solution that encompasses software integration, system buffering, process orchestration, and workflow optimization.

As your business grows, our commitment is to evolve with you, providing longevity and sustained value from your automation strategy.



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