ASSESSMENTS: UPTIME, ASSET MANAGEMENT AND MAINTENANCE BEST PRACTICES
BUDGETARY PLANNING AND LIMITING UNPLANNED DOWNTIME

Maintaining material handling equipment (MHE) uptime is imperative to operational success in the competitive worlds of omnichannel fulfillment, distribution and manufacturing. This is especially true when you consider that most downtime is preventable.

The Lifecycle Support Services (LSS) team at Honeywell Intelligrated helps customers with their asset management and CAPEX planning. We offer a complete assessment portfolio designed to clearly evaluate asset, maintenance and functional opportunities. We mitigate risks before they affect operations. Our expert team follows a systematic process to deliver insightful recommendations and operational observations while uncovering opportunities to increase throughput and capacity.

With Honeywell Intelligrated assessments, accurate capital and operational budgetary plans can be developed to manage equipment obsolescence and replacement — in advance of catastrophic failure.

ASSESSMENT OFFERINGS

Reliability assessments evaluate equipment’s operational condition and functionality levels.
- Address a variety of technologies, such as: line and loop sorters, palletizers, conveyors and pick-to-light systems
- Examine critical internal components in each equipment category
- Perform root cause analysis and repair prioritization

Safety assessments evaluate component conditions, plan for technological obsolescence, and ensure safe work environments, including:
- Leveraging thermographic imaging, current and voltage draw to identify potential electrical failure
- Identifying obsolete components
- Backup and recovery verification of critical components
- Asset adherence to the latest OSHA and ANSI safety regulations

Efficiency assessments review the effectiveness of maintenance programs and seek to optimize how well operators interface with MHE equipment.
- Analysis of maintenance practices and recommendations for best-in-class asset management
- Review effectiveness of maintenance automation tools: computerized maintenance management (CMMS) and enterprise asset management (EAM) systems
- Assess system performance and detail steps needed to return to its original, as-designed condition while ensuring optimal system wear
- Review and observe system operations and product flow
- Identify system constraints versus operational expectations
- Observation of equipment operator behaviors and performance

BENEFITS TO BOTH GREENFIELD AND BROWNFIELD FACILITIES

Regardless of the maturity of your system or facility, assessments provide a multitude of lifecycle benefits:

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<td>Prepare for the unexpected with parts on hand</td>
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ASSESSMENT SERVICES AND DELIVERABLES

Every assessment includes the following services and deliverables:
- Expert evaluation of major components and an overview report prior to leaving site
- Follow-up, detailed report with a summary of findings, risk level for each major component, and recommendations for improvement
- Inspections certificate containing photos and measurement data (when applicable)
- Recommendations for upgrades or product enhancements
- Parts quote for replacement components
- Discussions to ensure clear understanding of findings and recommendations
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GREENFIELD
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• Prepare for the unexpected with parts on hand
• Identify service requirements and costs
• Train technicians to support MHE systems

BROWNFIELD
• Mitigate risks and ensure peak readiness
• Prevent unforeseeable capital expenses
• Plan for timely technology renewals
• Improve maintenance operational efficiencies with in-stock parts

LIFECYCLE SUPPORT SERVICES ASSESSMENT PROCESS

1. Opportunity Identification
   Equipment is inspected thoroughly to identify any opportunities or risk of downtime or functionality.

2. Reporting
   All of the findings are documented and evaluated according to measurable specifications.

3. Design Review
   The documentation is reviewed against the original drawings and BOMs to ensure it is fulfilling its designed intent.

4. Subject Matter Expert Review
   Subject matter experts are consulted on the findings to advise on any recommendations that could improve or enhance equipment functionality.

5. Plan Next Steps
   Consolidated information can be used to plan or adjust lifecycle plan for that system.

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LIFECYCLE SUPPORT SERVICES
Honeywell Intelligrated Lifecycle Support Services (LSS) takes a consultative approach to lifecycle management, delivering proactive, value-added solutions that reduce the risk of downtime and increase system availability, longevity and dependability. The LSS team offers all the services, parts and support needed to keep systems running at peak efficiency. Through ongoing collaboration, we serve as a strategic partner to maximize your return on system investment.

Our comprehensive lifecycle management programs are designed to increase throughput, reduce operational labor, and optimize system performance by focusing on technology upgrades, equipment modifications, maintenance programs, system assessments, spare parts and inventory strategies. By capturing historical data about system health, we’re able to analyze trends and be proactive about asset management and maintenance.

THE CONNECTED DISTRIBUTION CENTER
The pace of change in modern commerce is putting tremendous pressure on fulfillment operations. To stay competitive and protect profits, companies need solutions that help them achieve maximum throughput, day-to-day flexibility, future-proof scalability and intelligence to make informed decisions.

The Connected Distribution Center helps companies make the digital transformation necessary to increase reliability, improve utilization and maximize productivity through:

- Intelligent, data-driven, high-speed execution
- Automated, adaptable processes for machines and workers
- Optimized utilization with the ability to seamlessly adapt and expand
- Insights and predictive analytics, from sensors to the cloud