

# Training Portfolio

## 2023

Honeywell Intelligrated offers training programs for general safety, material handling system operation and maintenance, as well as in-depth troubleshooting courses. These are designed to help you increase uptime, maximize your system investment, and streamline lifecycle management activities. Our training programs include a combination of classroom, web-based, practical hands-on exercises and can be customized to fit specific operational and budgetary requirements. Our training team is staffed by OSHA-authorized and PMMI-certified instructors that offer a variety of standard and specialized courses.

This training portfolio provides course descriptions and training capabilities, and is intended to be used to develop individualized training solutions. Most courses are available to be held at the Honeywell Intelligrated Headquarters in Mason, OH. On-site trainings are available per request.

Contact [igscompanytraining@honeywell.com](mailto:igscompanytraining@honeywell.com) for details

Trainings vary in length of time and level of competencies.

# Why Choose Honeywell Intelligrated Training?

Honeywell Intelligrated is a leading material handling company on a global scale. Our people know conveyors and full automation options better than anyone. This is our passion!

- Our facilitators consistently score high on their knowledge and presentation from student surveys.
- The learning can be online or in person at our Mason Ohio facility, or at a customer site.
- Hands on experience is available in our demonstration loop and training areas.
- Our state of the art facility offers a hand's on training environment that is safer, cleaner, and quieter than the typical live environment. Totally free from operations, lift truck traffic, or distractions
- You will learn from the experts!

## KEY FACTS

Customers who invest in Training experience

**40%**

fewer downtime incidents

**50%**

Faster resolutions of incidents

Customers with connected data from Machine Controls, CMMS/IRIS and Performance + experience

**30%**

reduction in TCO over a span of 30-year lifespan.

Customers with effective spare parts management programs

**22%**

reduction in total cost of ownership.



Our Mason facility provides free parking, and a fully staffed Bistro which is open daily during breakfast and lunch hours. They offer a wide variety of food options, including stone hearth fired pizzas, pasta, salad bar, daily entrées, a variety of sandwiches, sides, and desserts.

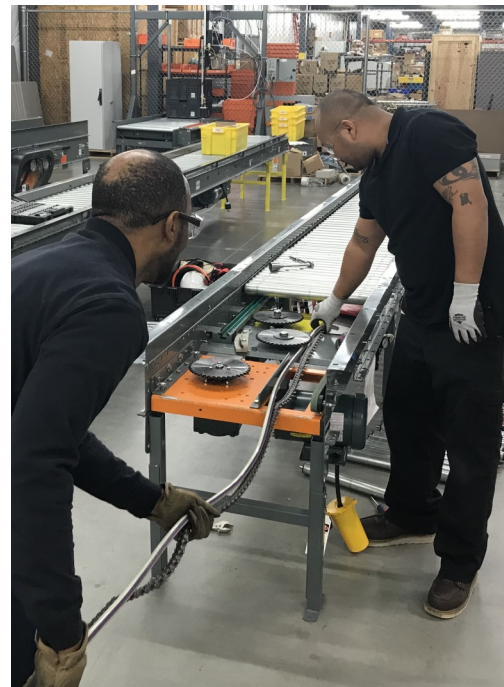
## Testimonials:

*"I feel this training was really great!"*

*"This training is essential to all [those who work on MHE equipment]...Keep up the great work!"*

*"I absolutely recommend this [training] and these instructors to ALL [MHE service workers]!"*

*"I look forward to more training in the future!"*



# Course Offered Directory:

## Introductory Courses

Material Handling Equipment Introduction .....  
Palletizer Introduction.....  
Loop Sortation.....  
Linear Sortation.....  
Controls—Introduction.....  
Automated Storage and Retrieval.....  
USS Introduction.....  
System Troubleshooting Introduction.....

## Intermediate Courses

Material Handling Equipment Maintenance & Troubleshooting .....  
Controls (Continuation).....  
Automated Storage and Retrieval Maintenance & Troubleshooting.....  
Linear Sortation Maintenance & Troubleshooting .....  
Loop Sortation Maintenance & Troubleshooting .....  
Palletizer Maintenance & Troubleshooting .....  
USS Maintenance & Troubleshooting.....

## Industrial Skills

Software (BOSS III or ICW or MC4 or MCBL or WES)  
PLC/HMI.....  
VFD.....  
Scanners.....  
Control Panels / Schematics / Drawings.....  
Train-the-Trainer.....

## Advanced Courses

Material Handling Equipment (SME Path).....  
Controls (SME Path).....  
Palletizer (SME Path).....  
Linear Sortation (SME Path).....  
Loop Sortation (SME Path).....



### Material Handling Equipment Introduction

Hours: 8

**Description:** Material Handling Equipment Introduction. This one-day course provides an overview of the conveyance equipment offered by Honeywell Intelligated. Examples of topics covered; Safety guidelines, general industry terminology, conveyor types/options, system demonstration, carton flow and control, etc.

### Palletizer Introduction

Hours: 16

**Description:** General Operations Training - This two (2) day course provides an introduction to Palletizers and includes Safety, System Overview, and Hands-on training. The intended audience are personnel with little or no experience with Palletizers. You will learn theory of operation on different types and models of palletizers, how to safely engage with the equipment for general operational functions, how to navigate and interact with the HMI control functions, and understand common-vs-maintenance required faults and alarms.

### Loop Sortation

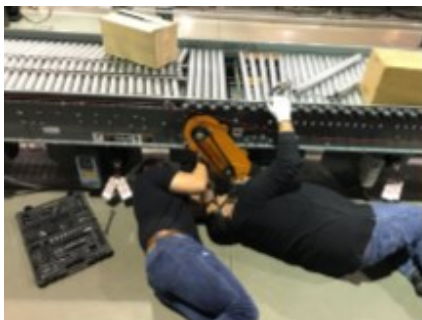
Hours: 8

**Description:** Loop Sortation. This one (1) day course provides and introduction to Intelligated Loop Sortation options. This includes Tilt-Tray and Cross Belt models covering sorter component identification and function, live environment simulation and theory of operation. General operation of manual and auto-induct stations as well as the operation of discharge chutes.

### Linear Sortation

Hours: 8

**Description:** Linear Sortation Introduction. This one (1) day course provides an overview of the options available for linear sortation including; Intellisort HS, Intellisort WD, Intellisort SBS and /or Intellisort HDS. There will be an overview in the classroom covering theory of operation and major components and options, live-system demonstration including explanation of operation and component ID for each of the linear sorters.





### Controls - Introduction

**Hours:** 24

**Description:** This three (3) day course provides a general overview of many of the technologies associated with controlling, monitoring and diagnosing an automated warehouse solution. Topics covered include; Introduction to Electrical-Mechanical maintenance, overview of Variable Frequency Drives, how to read schematics, control software/HMI introduction and overview, etc.

### Automated Storage and Retrieval

**Hours:** 8

**Description:** This one (1) day course provides an introduction to AS/RS systems and includes Safety, System Overview, and hands-on training. The intended audience are personnel with little or no experience with AS/RS systems operation. You will learn how to enter an aisle safely to perform general jam-clearing, understand system-messaging (WES-Storage Manager), operate system-user interface functions, navigate system-reporting functions, and understand common-vs-maintenance required faults & alarms.

### USS Introduction

**Hours:** 4

**Description:** The USS Training Course is designed to provide a basic understanding of the operation, preventive maintenance, troubleshooting, and repair of United Sortation Systems equipment. This includes component identification and replacement of the major products offered such as the VIC, OSL, ITPS, TDM, & DTS.

### System Troubleshooting Introduction

**Hours:** 8

**Description:** The System Troubleshooting course is designed to train the facilities technician on the basic of identifying and correcting problems commonly found in material handling systems. Students will be introduced to various electrical and mechanical downtime events in a controlled environment where their problem solving skills will be put to the test. With safety in mind, instructors will guide participants to improve their overall skillset in troubleshooting.



### Material Handling Equipment Maintenance & Troubleshooting

Hours: 24

**Description:** Material Handling Equipment Maintenance and Troubleshooting - This three-day course is designed to provide an understanding of the operation, preventive maintenance, troubleshooting and repair of material handling system equipment, this training course also includes component identification and replacement. Instructors tailor training to the product type, such as belt conveyors, IntelliQ, etc. This course does not include electrical panels or controls maintenance.

### Controls (Continuation)

Hours: 32

**Description:** This four (4) day course builds on the knowledge gained from the introductory Controls course, a more in-depth training with controlling, monitoring and diagnosing an automated warehouse solution. There will be increased hands-on with all topics covered including; Electrical-Mechanical maintenance, Variable Frequency Drives, Intelligrated schematics, control software/HMI troubleshooting, etc.

### Automated Storage and Retrieval Maintenance and Troubleshooting

Hours: 24

**Description:** Advanced Maintenance Training. This three (3) day course provides a deep-dive look into AS/RS systems; Safety, Troubleshooting, Repair & Replacement (R&R) training which includes practical, hands-on practice. The intended audience are experienced technicians and maintenance-related personnel. You will learn safe maintenance practices for ASRS aisles & product lift areas, full mechanical breakdown of equipment, shuttle controller I/O checks, and relevant work instructions.



### Linear Sortation Maintenance and Troubleshooting

Hours: 16

**Description:** Preventive and Corrective Maintenance - This two (2) day course will provide in-depth instruction for OEM preventive and corrective maintenance procedures of the Intelligent linear sortation options. The class will perform LOTO, remove various covers, guards, etc. in order to become familiar with the components of the sorters. This will be followed by a lessons-learned discussion with the class for each of the sorters. Sortation control and related maintenance functions i.e. Sorter Calibration techniques will then be discussed and demonstrated.

### Loop Sortation Maintenance and Troubleshooting

Hours: 24

**Description:** This three (3) day course builds on the Loop sorter introduction course with more in-depth and hands-on activities. This includes Tilt-Tray and Cross Belt models covering sorter component identification and function, live environment simulation, preventive and corrective maintenance techniques. Maintenance and operation of manual and auto-induct stations as well as maintenance and operation of discharge chutes.

### Palletizer Maintenance and Troubleshooting

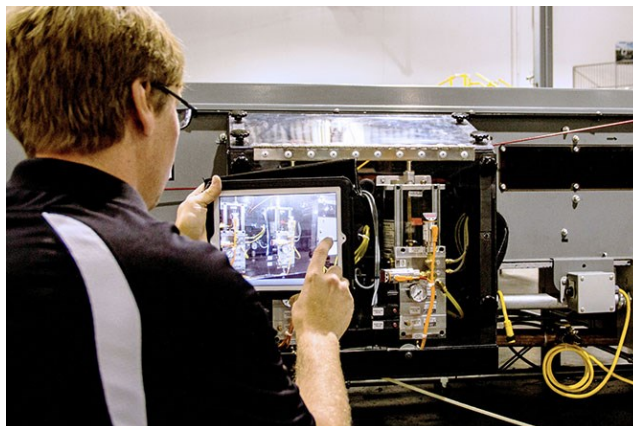
Hours: 24

**Description:** This three (3) day course provides an introduction to Palletizer Maintenance and Troubleshooting. It will include safety, system overview, and hands-on training for both mechanical and electrical topics. The intended audience are personnel with minimal to moderate experience with Palletizers. You will learn how to perform preventative maintenance activities, mechanical checkout and start-up procedures, along with interactive troubleshooting activities. You will also learn how to safely engage with the equipment for invasive mechanical activities and troubleshooting.

### USS Maintenance and Troubleshooting

Hours: 16

**Description:** This two (2) day USS Training Course is designed to build upon the Introductory course with more in-depth and hand-on activities of United Sortation Systems equipment. This includes preventative maintenance and troubleshooting of the major products offered such as the VIC, OSL, ITPS, TDM, & DTS.



### Material Handling Equipment Advanced (SME Path)

Hours: 32

**Description:** This four (4) day course is designed to provide an understanding of preventive maintenance, troubleshooting, repair and overview of control systems for material handling system equipment. We build on the Introductory course with a focus on hands-on experience and independent troubleshooting practices. Instructors tailor training to the product type, such as belt conveyors, IntelliQ, etc. This course focuses on mechanical aspects of MHE and does not include electrical panels or controls maintenance.

### Controls Advanced (SME Path)

Hours: 32

**Description:** This four (4) day course builds on the knowledge gained from the Introductory Controls course, a more in-depth training with controlling, monitoring and diagnosing an automated warehouse solution. There will be increased hands-on with all topics covered including; electrical-mechanical maintenance, variable frequency drives, Intelligated schematics, control software/HMI troubleshooting, ProfiTrace, etc. This will include connecting directly to various devices to learn about replacement, troubleshooting and software requirements. Allen-Bradley PLC troubleshooting and minor ladder logic programming practices will be covered.

### Palletizer Advanced (SME Path)

Hours: 24

**Description:** This three (3) day course provides an introduction into palletizer controls and electronics. It will include safety, system overview, and hands-on training for both electrical and controls topics. The intended audience are personnel with moderate to extensive experience with palletizers and electrical systems. You will learn how to describe flow input/device functions using PLC and HMI, and troubleshoot problems utilizing PLC and HMI. You will also learn pattern building using PLC Logic as well as pattern building screens using HMI software.





### Linear Sortation Advanced (SME Path)

Hours: 16

**Description:** This two (2) day course will provide in-depth, hands-on instruction for OEM preventive and corrective maintenance procedures as well as troubleshooting and diagnostic techniques. In depth preventative maintenance activities will be demonstrated and performed by students. Sortation control and related maintenance functions such as sorter calibration techniques will be discussed and demonstrated.

### Loop Sortation Advanced (SME Path)

Hours: 16

**Description:** This two (2) day course builds on the intermediate Loop Sortation course with a focus on troubleshooting and controls. This includes Tilt-Tray and Cross Belt models covering sorter component identification and function, live environment simulation, preventive and corrective maintenance techniques, troubleshooting techniques and controls systems. Troubleshooting, maintenance and operation of manual and auto-induct stations as well as troubleshooting, maintenance and operation of discharge chutes.



Foundational Industrial Skills series designed to aid the employee who may not have prior experience with conveyors and/or the Material Handling industry. Operations staff looking to make the transition to facilities/maintenance will benefit greatly as well.

**Industrial Skills:**

**Software (BOSS III or ICW or MC4 or MCBL or WES)**

**Hours:** 8

**Description:** This one day course provides a general overview of any one of the listed software's associated with controlling, monitoring and diagnosing an automated warehouse solution. Topics covered include; operations and troubleshooting. Each participant will engage in hands-on troubleshooting activities in our controlled automated conveyor system.

**PLC'S & HMI'S**

**Hours:** 8

**Description:** This one day course provides a general overview of many of the technologies associated with controlling, monitoring and diagnosing an automated warehouse solution. Topics covered include; Introduction to PLC control software, PanelView HMI introduction and overview. Various troubleshooting techniques will be taught using basic ladder-logic methods.

**VFD'S**

**Hours:** 8

**Description:** This one day course provides an introduction to Variable Frequency Drives and the equipment commonly controlled by them in the Material Handling Industry. The two most common brands utilized by Honeywell Intelligrated will be covered; Eaton and Allen-Bradley. Through the use of demo-units and VFD's in a simulated, live-environment, students will learn how to upload/download parameters, troubleshoot fault codes and set parameters.

**Scanners**

**Hours:** 8

**Description:** This one day course will provide a general understanding and knowledge of maintenance and troubleshooting of scanner systems within an automated warehouse environment. The two most commonly utilized brands will be focused on; Cognex and SICK. Students will be instructed on topics ranging from the basics of barcodes to the replacement of individual scanner devices.

**Control Panels / Schematics / Drawings**

**Hours:** 8

**Description:** This one day course explains how to navigate Honeywell Intelligrated schematics, drawings, and Dashboard to safely troubleshoot electrical issues.

**Train the Trainer**

**Hours:** 24

**Description:** The aim of the Train-the-Trainer course is to provide the participants with the necessary skills and knowledge to deliver effective classroom training. The participants gain the skills required to deliver training presentations to an audience. Industry accepted adult learning principles will be taught such as; characteristics of the adult learner, the 4-step training method and Power-Point skills.

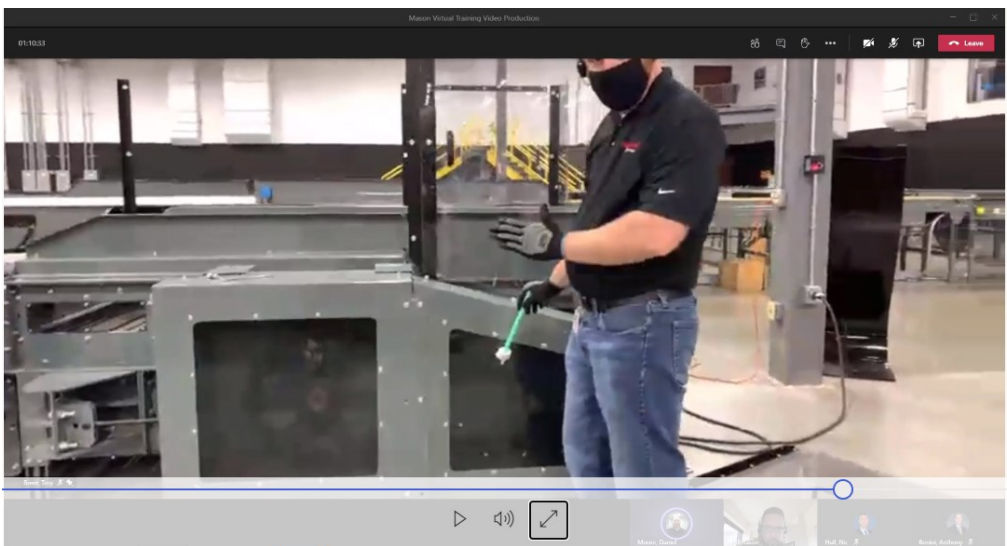
### Features and Benefits

- Interactive PowerPoint presentations made available via a virtual meeting software (Microsoft Teams, Skype, Zoom, Blackboard, etc.)
- POV video live streamed for all hands-on activities
- Interactive Q&A with surveys facilitated by an additional Trainer

### Courses Offered

Virtual Courses	
Material Handling Equipment Introduction .....	
Automated Storage and Retrieval.....	
Controls—Introduction.....	
Linear Sortation.....	
Loop Sortation.....	
USS Introduction.....	
System Troubleshooting Introduction.....	
Material Handling Equipment Maintenance & Troubleshooting .....	
Automated Storage and Retrieval Maintenance & Troubleshooting .....	
Linear Sortation Maintenance & Troubleshooting .....	
Loop Sortation Maintenance & Troubleshooting .....	
BOSS III.....	
ICW.....	
MC4.....	
MCBL.....	
WES.....	
VFD.....	

Email for pricing, durations, or any additional information: [igscompanytraining@honeywell.com](mailto:igscompanytraining@honeywell.com)



# What is ICampus?

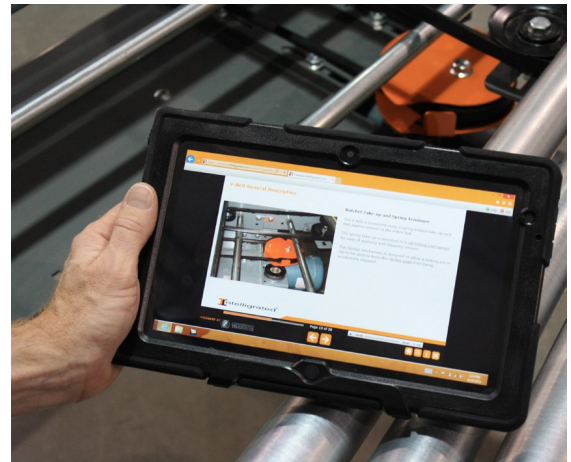
Honeywell Intelligrated's ICampus allows customers to manage workforce training efforts and progress. Created by OSHA-authorized and PMMI certified trainers, the courses promote maximum comprehension and retention, and are an integral part of a blended learning strategy.

ICampus trains operators, maintenance personnel and new hires on safety, general maintenance, and refresher training.

Students can complete ICampus courses to gain baseline knowledge prior to instructor-led sessions. Course review before and after the instructor led sessions helps increase content retention and provides a reference. A well-trained workforce is a safe more productive workforce. More than 300 available courses include Honeywell Intelligrated product-specific modules, as well as safety and maintenance fundamentals. Courses are always being added as well. Email for additional information: [igscompanytraining@honeywell.com](mailto:igscompanytraining@honeywell.com)

## Features and Benefits

- Supervisory tracking of personnel progress via accounts unique to each student
- Assessments and quizzes built into each module
- Video, animations, charts and dynamic text in modules create an interactive learning environment
- Safety courses based on OSHA standards
- Honeywell Intelligrated product specific courses
- Advanced and basic maintenance courses
- Training at student's own pace and schedule with courses that can be taken multiple times
- Training plans customized to meet job requirements
- Adaptable courses benefit different learning styles
- Training satisfies OSHA compliance requirements
- Better trained employees are more proactive in safety and maintenance
- Course content expandable to meet growing knowledge needs of student



## CUSTOMER Y ICAMPUS USAGE SUMMARY

### Training Modules Completed

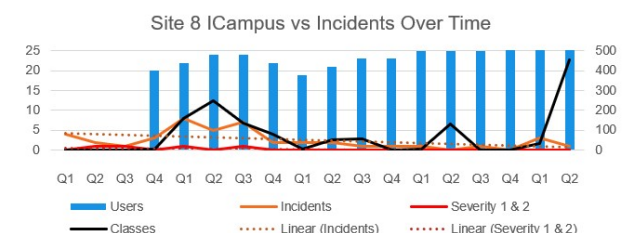
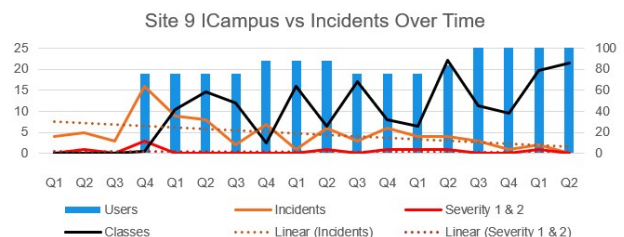
- Year 1: 6,529
- Year 2: 9,111
- Year 3: 10,115

### High ICampus Usage Sites

- 87.5% of sites have a decline in incident
- 37.5% of sites have a decline in sev 1 & 2

### Low ICampus Usage Sites

- 0% of sites have a decline in incidents
- 0% of sites have a decline in sev 1 & 2 incidents





## Learn More. Do More. Be More.

Life long learning is imperative to career advancement. Be the one who knows what the latest upgrades are, understands the latest technology, and move forward in the ever evolving AI industries. Material Handling is moving e-commerce, loading and unloading hands free, and stacking, storing, and retrieving automatically. It is more than just conveyors. Come see what you can learn in one of our training courses.



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