# HONEYWELL ACADEMY

# EMPOWER PEOPLE

GLOBAL TRAINING CATALOG

**Honeywell**

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# VISION

Provide best in class design and delivery of learning solutions that maximize the value of your technology investment.

# INTRODUCTION

> Honeywell Academy and our exceptional faculty and staff wish to extend you a warm welcome. Whether you are a returning student, just beginning your training plan or taking advantage of our online courses, Honeywell Academy offers you a quality learning experience designed to empower you to advance your education, career opportunities and performance goals.

Our training solutions are designed to help you become more productive and proactive while delivering greater value to your operations. Honeywell Academy courses are targeted to meet your organizational needs and delivered in the most convenient and cost-effective format.

Certified instructors are available to work closely with you and your staff to define a comprehensive training program that can be conducted on-line or at one of our world-class training facilities or even at your site.

# TRAINING SOLUTIONS

## ON-PREMISES OFFERING

• Instructor-Led Training (ILT)

- – Complete classroom environment
- – Expert instructors utilize advanced training methodologies by encouraging interaction between students
- – Honeywell Training Center: Open Enrollment and/or dedicated session
- – Customer Site: Dedicated session

## DIGITAL OFFERINGS

• Self-paced

- – Asynchronous Training (AT) comes in the form of highly interactive lectures, presentations, demonstrations, and exercises to convey concepts

• Scheduled

- – Virtual Instructor-Led Training (VILT) provides a full-time remote instructor to deliver the training lectures by utilizing latest collaboration tools

# TRAINING NEEDS ASSESSMENT (TNA)

Training Needs Assessment (TNA) is a service that effectively identifies gaps between the capabilities of your Automation System and the skills of your workforce. The outcome of TNA is a comprehensive training plan focused on improving the skills, knowledge, and performance of your plant's personnel, resulting in maximum benefits from your automation investment.

The TNA will be done in two steps by one of the instructors of Honeywell Academy:

- People Data Collection and Skills Assessment
  - Understanding of your plant's organization, key issues facing plant and any future plans. The optional Skills Assessment evaluates the participants' domain knowledge and their job roles.

- Gap Analysis and Training Plan
  - Identification of gaps in skills, possible risks, underutilization of the system's capabilities and inefficiencies due to the lack of knowledge. Honeywell Academy will propose a comprehensive training plan that addresses the issues identified in the gap analysis along with the training schedule.

# RESIDENCY PROGRAM



The Honeywell Residency Program is an outcome based, modular, and structured training program for your employees to gain comprehensive knowledge on Instrumentation, Automation Control and Safety Systems, used in modern industrial process plants.

The training courses are delivered by professional instructors who are subject matter experts in their domain.

This program is designed to help participants become more productive and competent in both knowledge and skills in their daily work while delivering greater value to operations and return on your employee investments.

## WHO SHOULD ATTEND?

The program is beneficial for both new hires and high potential engineers and technicians, looking for a fast-track learning experience on state-of-the-art process instrumentation and automation technologies.

## VENUE

The program takes place at our Honeywell Academy locations globally.

## PROGRAM DURATION, DATES AND REGISTRATION, QUERIES

Please contact your local Honeywell Academy or your local Honeywell Account Manager.

# E-LEARNING SUBSCRIPTION SERVICES

Honeywell Academy is at the forefront of digital learning. Learners are provided access to a variety of training formats and tools throughout their training journey. Our Asynchronous Training (AT) and Modular Training (MT) courses are becoming ever more popular with an engaging user interface, quizzes, hands-on labs, and real-time support from Honeywell Training Specialists.

Honeywell Academy is pleased to offer our entire library of self-paced E-learning training courses to customers as a part of annual subscription services.

## HONEYWELL AUTOMATION SUBSCRIPTION SERVICE

The E-Learning Subscription program is offered in two convenient packages:

- Standard
- Premium

| DELIVERABLES | STANDARD | PREMIUM |
|---|:---:|:---:|
| Can be purchased in convenient packs | ✓ | ✓ |
| Annual access to 150+ AT, MT courses and Micro learning videos | ✓ | ✓ |
| Covers Experion PKS, Safety Manager, Field Device Manager, Trace, ControlEdge, HC900, Experion MX, QCS and more | ✓ | ✓ |
| New releases over the contract year added automatically | ✓ | ✓ |
| New courses over the contract year added automatically | ✓ | ✓ |
| Subscribers' only Monthly Newsletter | ✓ | ✓ |
| Can use your contribution from TMF to purchase | ✓ | ✓ |
| Quarterly Subscriber Only Tech Refresh webinar | ✓ | ✓ |
| Comprehensive Training Needs Assessment and report to identify right courses to do | | ✓ |
| Register any two open enrolment ILT or VILT courses at Honeywell Academy location of your choice | | ✓ |

## HONEYWELL INDUSTRIAL SUBSCRIPTION SERVICE

- Over 650 courses
- Covers Operations, Maintenance, and Environmental Health & Safety (EH&S) topics
- It can be purchased in convenient packs of either 5, 26, 51, or 101 licenses

## BENEFITS

- Cost savings and more effective
- No need to pay for each course separately, and you can choose the training course when you need it for maximum flexibility
- Any new releases in that subscription year will be automatically added to the pack without extra cost
- When Honeywell Academy develops new AT/MT courses, they will also be added to the subscription pack without any extra cost
- Some exclusions apply

Please contact your local Honeywell Account Manager or Field Service Manager for details.

https://process.honeywell.com/us/en/services/training

# HONEYWELL CERTIFICATION

The Honeywell Certification is all about YOUR journey, where you are today, where you want to be tomorrow and defining your career goals. Today, Honeywell Academy offers certification paths that cover key product lines to help provide objective validation that you have successfully mastered the content of key courses.

What are the benefits of the Honeywell Certification?

• Extended challenge strengthens know-how and material mastery.

• Standardized tests demonstrate knowledge gained

• Employee competence is assured

• Efficient, effective measure of skill level

With a duration of up to four hours, the certification proctored test can be taken on the last day of the course.

| Experion PKS | |
| --- | --- |
| EXP-01-CT | Experion PKS: Controller Operation - Certified Associate |
| EXP-01OR-CT | Experion PKS: Fundamentals - Controller Orion Operation - Certified Associate |
| EXP-02-CT | Experion PKS: Server Engineering and Configuration Implementation - Certified Associate |
| EXP-03-CT | Experion PKS: Graphics Design and Building Implementation - Certified Associate |
| EXP-05C3-CT | Experion PKS: C300 Troubleshooting and Maintenance - Certified Associate |
| EXP-12-CT | Experion PKS: TPS Operation - Certified Associate |
| EXP-13-CT | Experion PKS: Controller and TPS Operation - Certified Associate |
| EXP-23-CT | Experion PKS: Server and Station Installation and Administration - Certified Associate |
| EXP-24-CT | Experion PKS: Controller Fieldbus Configuration Implementation - Certified Associate |
| EXP-25-CT | Experion PKS: System Level Troubleshooting and Maintenance - Certified Associate |
| EXP-26-CT | Experion PKS: SCADA Operation - Certified Associate |
| EXP-30-CT | Experion PKS: Field Device Manager (FDM) Implementation and Troubleshooting - Certified Associate |
| EXP-48-CT | Experion PKS: Virtualization Implementation - Certified Associate |
| EXP-2001C3-CT | Experion PKS: C300 Controller Implementation - Certified Associate |
| EXP-2001UOC-CT | Experion PKS: UOC Controller Implementation - Certified Associate |
| EXP-6000-CT | Experion PKS: System Overview - Certified Associate |
| **Safety Manager** | |
| SM-4550-CT | Safety Manager: Maintenance - Certified Associate |
| SM-4551-CT | Safety Manager: Implementation - Certified Associate |
| **Uniformance PHD** | |
| UNI-0003-CT | Uniformance PHD: Fundamentals - Process Studio, Insight and System Maintenance - Certified Associate |
| UNI-0004-CT | Uniformance PHD: Advanced - Interfaces and System Administration - Certified Associate |

# TRAINING MATCH FUND (TMF)

Double your training investment with Honeywell's Global SESP Training Match Program.

Honeywell's SESP has been designed to maximize the results from your investment in automation control and information technology. The Training Match option is an annual renewal program that is part of your SESP contract. Your Training Match purchase commitment must occur at the beginning of the SESP contract term and cannot be added to, modified, or cancelled.

You may purchase training funds up to 10% of your total SESP program final sell price and Honeywell will match the amount you designate, effectively doubling your training investment.

To determine how the SESP program and TMF will support your specific plant operating strategies, please contact your local Honeywell Account Manager or Field Service Manager.

Training Match Fund can be applied to the published list price tuition for:

- In-center regularly scheduled classes
- E-learning training courses
- On-site standard and tailored customer training courses
- The approved courses are listed on the Honeywell Academy website: https://process.honeywell.com/us/en/services/training
- Registration of up to four attendees for Honeywell Users Group (HUG)

Sign up or renew your Solution Enhancement Support Program (SESP) contract and include Training Match Funds today!

# EXPERION PKS

> **Experion® Process Knowledge System (PKS) is Honeywell's unified system for process, business and asset management that helps industrial manufacturers increase profitability and productivity.**

Experion PKS transforms process control beyond traditional Distributed Control System (DCS) functionality by unifying people with process variables, business requirements and asset management. It is the only automation system that focuses on plant personnel and making the most of their knowledge.

| OVERVIEW | |
|---|---|
| EXP-1018-AT | Experion PKS: Fundamentals - Virtualization Premium Platform FX2 Overview |
| 0.5 Day | Learn the Honeywell Virtualization Premium Platform based on Dell FX2 System. |
| EXP-1024 | Experion PKS: Fundamentals - TPS to Experion Migration and Troubleshooting Overview |
| 5 Days | Learn how to install, migrate and troubleshoot Experion PKS system connected to the TPS/TDC3000 System and to configure, implement, and migrate to the Experion LCN (ELCN) Network. |
| EXP-6000 | Experion PKS: Fundamentals - System Overview |
| 2 Days | Gain understanding of a system network hierarchy and the components that reside on each network layer, given multiple business/process applications. |
| **OPERATION** | |
| EXP-01 | Experion PKS: Fundamentals - Controller Operation |
| 3 Days | Learn how to efficiently operate the Experion PKS System comprising Experion PKS Server, Fault Tolerant Ethernet and the C200/C300 controllers. |
| EXP-01OR | Experion PKS: Fundamentals - Controller Orion Operation |
| 3 Days | Learn how to efficiently operate the Experion PKS System using Orion Console comprising  Experion PKS Server, the Fault Tolerant Ethernet and C200/C300 controllers |
| EXP-12 | Experion PKS: Fundamentals - TPS Operation |
| 4 Days | Learn how to operate the Experion PKS System integrated with a TotalPlant Solution (TPS) System. |
| EXP-13 | Experion PKS: Fundamentals - Controller and TPS Operation |
| 4 Days | Learn how to operate the Experion PKS System connected to both the C200/C300 controller and the TotalPlant Solution (TPS) system |
| EXP-26 | Experion PKS: Fundamentals - SCADA Operation |
| 2.5 Days | Learn to operate the Experion PKS System comprising of the Experion PKS Server and SCADA controllers. |
| **IMPLEMENTATION** | |
| EXP-02 | Experion PKS: Fundamentals - Server Engineering and Configuration Implementation |
| 4.5 Days | Learn how to plan an Experion PKS System effectively, configure a server for SCADA connections, integrate with OPC and TPS platforms, and use Experion PKS data i n other applications. |
| EXP-03 | Experion PKS: Fundamentals - Graphics Design and Building Implementation |
| 4 Days | Learn how to develop Experion PKS display design guidelines and operating displays using the HMIWeb Display Builder. |
| EXP-16 | Experion PKS: Fundamentals - Control Execution Environment CAB + ACE Implementation |
| 3 Days | Learn how to create a Custom Algorithm Block (CAB) and to configure custom blocks in a Control Execution Environment (CEE). |
| EXP-21 | Experion PKS: Fundamentals - Experion Batch Manager (EBM) - Instance Based Recipes Implementation |
| 3.5 Days | Learn how to apply Experion Batch Manager (EBM) instance based recipes to their process needs. |

## IMPLEMENTATION (Contd....)

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|---|---|
| EXP-24 | Experion PKS: Fundamentals - Controller Fieldbus Configuration Implementation |
| 4 Days | Learn how to build and configure a C200/C200E/C300 controller with a Fieldbus Interface Module (FIM). |
| EXP-30 | Experion PKS: Advanced - Field Device Manager (FDM) Implementation and Troubleshooting |
| 4 Days | Learn how to build HART, FF networks, configure HART, FF devices, configure HART Multiplexers, modify parameters, utilize history functions, configure, and use MUX Monitoring solution and troubleshoot HART devices using Field Device Manager (FDM). |
| EXP-48 | Experion PKS: Fundamentals - Virtualization Implementation |
| 4.5 Days | Learn the concepts and guidelines needed to implement (Experion PKS off-process) / (on-process) virtual system. |
| EXP-1011 | Experion PKS: Advanced - Class Based Recipes Implementation |
| 3 Days | Learn how to perform Experion Batch Manager (EBM) tasks: create Layered Recipes, understand use of Recipe Builder, and use of Class Based Recipes (CBR). |
| EXP-1015 | Experion PKS: Fundamentals - Basic Networking Concepts and FTE Implementation |
| 3 Days | Learn the concepts of networking and guidelines needed to implement Experion PKS with Fault Tolerant Ethernet (FTE). |
| EXP-1016 | Experion PKS: Fundamentals - OPC Concepts and Implementation |
| 3.5 Days | Learn to configure and manage the Experion PKS interface with 3rd party devices and systems via OPC. |
| EXP-1025 | Experion PKS: Advanced - C300 Process Control Techniques Implementation |
| 5 Days | Learn to thoroughly understand various algorithms in C300 Controller and their applications in real-life situations. |
| EXP-2001C3 | Experion PKS: Fundamentals - C300 Controller Implementation |
| 4.5 Days | Learn concepts and strategies needed to plan, configure, and build C300 controller. |
| EXP-2001UOC | Experion PKS: Fundamentals - UOC Controller Implementation |
| 4.5 Days | Learn to plan and implement the Experion PKS Unit Operation Controller (UOC) / virtual Unit Operation Controller (vUOC). Build and configure a Control Execution Environment applicable to the UOC/vUOC. |

## MAINTENANCE

| | |
|---|---|
| EXP-05C3 | Experion PKS: Fundamentals - C300 Troubleshooting and Maintenance |
| 5 Days | Gain a full understanding of both the hardware and software facets of the Experion PKS C300 controller interfaces. |
| EXP-05UOC | Experion PKS: Fundamentals - UOC Troubleshooting and Maintenance |
| 5 Days | Gain a full understanding of both the hardware and software facets of the Experion PKS Unit Operations Controller (UOC) controller interfaces. |
| EXP-25 | Experion PKS: Advanced - System Level Troubleshooting and Maintenance |
| 9.5 Days | Obtain in-depth training on how to troubleshoot both the hardware and software of the Experion PKS System. |
| EXP-1023-AT | Experion PKS: Advanced – Experion LCN System Troubleshooting and Maintenance |
| 1 Day | Learn how to troubleshoot and maintain Experion LCN system. |

## ADMINISTRATION

| | |
|---|---|
| EXP-23 | Experion PKS: Advanced - Server and Station Installation and Administration |
| 9.5 Days | Undergo intensive training in planning, installing, configuring, and administering the Experion PKS System. |
| EXP-1002 | Experion PKS: Fundamentals - ESVT and ES-T Administration |
| 4.5 Days | Learn the concepts and strategies needed to administer and maintain the TPS connected Experion PKS System. |
| EXP-1014 | Experion PKS: Advanced - Server and Station (Non LCN-Connected) Installation and Administration |
| 9.5 Days | Undergo intensive training in planning, installing, configuring, and administering the Experion PKS System (non LCN-connected). |

# TPS / TDC

**Honeywell's TotalPlant Solution (TPS) System integrates, via the Local Control Network (LCN), legacy TDC 3000 modules, like Universal Station (US), Network Interface Module (NIM) and History Module (HM), with Windows-based Global User Station (GUS) and Application Processing Platform (APP) nodes. The NIM interfaces the LCN with the Universal Control Network (UCN), on which the Process Manager family of controllers reside.**

TPS continues to provide large scale Distributed Control System (DCS) capabilities and offers customers the flexibility to integrate into the latest Experion® LCN systems. The new Experion® LCN solution enables customers to upgrade to Experion and enable improvements in safety, profitability and operations while using their existing system as a strong foundation.

| OVERVIEW | |
|---|---|
| TPS-0004 | TPS: Fundamentals - LCN/UCN Overview |
| 4 Days | Gain understanding of the terminology, control philosophy and functions of the TPS System consisting of LCN and UCN with HPM controller. |
| **IMPLEMENTATION** | |
| TPS-0005 | TPS: Fundamentals - LCN Configuration Implementation |
| 5 Days | Learn how to configure a TotalPlant Solution (TPS) System that includes building NCF as well as initializing HM. Gain understanding of configuration tasks such as building a GUS button file, building History Groups, building basic custom displays, and building an Area Database. |
| TPS-0006 | TPS: Fundamentals - Point Building and UCN/HPM Implementation |
| 5 Days | Learn how to configure a UCN System that includes NIM and HPM, how to enter and load HPM points as well as perform a checkpoint to save configuration and point data. |
| TPS-0007 | TPS: Fundamentals - HPM Points & CL Configuration and Implementation |
| 5 Days | This course is designed for personnel who already have a fully implemented TPS System and will be responsible only for building HPM points and writing HPM CL programs from a Global User Station. Learn to implement HPM functions such as building HPM regulatory control, digital, logic, and box variable points as well as writing HPM control language (CL) programs. |
| TPS-0008 | TPS: Fundamentals - APP Node AM/CL Implementation |
| 3.5 Days | Learn how to configure Application Module (AM) points, Control Language (CL) programs, and Custom Data Segments, then linking them together in supervisory control schemes. Control schemes are implemented on the Application Processing Platform (APP) node using the GUS Native Window as the user interface and the Data Entity Builder (DEB) as the configuration tool. This course introduces the process of initiating Windows-side applications from Local Control Network (LCN)-side CL programs. |
| TPS-0009 | TPS: Fundamentals - Picture Editor Graphics Building Implementation |
| 4.5 Days | Learn the techniques for building Picture Editor Custom Displays using the Picture Editor function. Learn to use values, targets, variants, conditional behavior, collectors, subpictures, and the display database to create displays that provide process information and interaction, including the handling of alarms. |
| **MAINTENANCE** | |
| TPS-0014 | TPS: Fundamentals – LCN and Advance Cable Maintenance |
| 4.5 Days | Learn to identify LCN hardware, troubleshoot and resolve errors, perform preventive maintenance on the LCN, and use of TDR. |
| TPS-0015 | TPS: Fundamentals – UCN/HPM and Advance Cable Maintenance |
| 5 Days | Learn to identify UCN hardware, troubleshoot and resolve errors, perform preventive maintenance on the UCN, use a TDR and Relcom Carrier Band Tester. |
| TPS-5739 | TPS: Fundamentals - (GUS) LCN/UCN/HPM Maintenance |
| 4.5 Days | Learn to maintain the Universal Control Network (UCN), High Performance Process Manager (HPM), and the Network Interface Module (NIM) hardware components. |

# SAFETY MANAGER

> Honeywell's safety systems lower the cost of safety and improve plant performance by reducing the risk of safety incidents, maximizing production uptime, reducing the cost of compliance, and providing productivity tools that help customers manage safety in their plant.

Safety Manager™, Honeywell's next-generation safety system platform, is an effective and reliable safety solution for critical process control, equipment, and process protection. Safety Manager combines proven technology with two decades of Honeywell's process safety management expertise in integrating process safety data, applications, system diagnostics, and critical control strategies.

| OVERVIEW | |
|---|---|
| SM-4553 | Safety Manager: Fundamentals - Overview |
| 1 Day | Gain an understanding of the different architectures of Safety Manager, an overview of the hardware and software, and its safety concept. |
| **OPERATION** | |
| SM-4552 | Safety Manager: Fundamentals - Operation |
| 1 Day | Learn about operating Safety Manager (SM) software, and the technical aspects of the System, including safety and availability considerations. |
| **IMPLEMENTATION** | |
| SM-4551 | Safety Manager: Fundamentals - Implementation |
| 4.5 Days | Learn how to implement Safety Manager (SM) projects, obtain knowledge of technical aspects of the System, and do some programming. |
| SM-4554 | Safety Manager: Fundamentals - On-Line Modification Implementation |
| 2 Days | Learn how to perform On-Line Modifications (OLM), including how to modify an application, upgrade to a newer software release, and adding or removing additional hardware online. |
| SM-4555 | Safety Manager: Advanced - Implementation |
| 5 Days | Learn about Safety Manager (SM) System's basic programming, operation, troubleshooting techniques, diagnostics, and online changes. |
| **MAINTENANCE** | |
| SM-4550 | Safety Manager: Fundamentals - Maintenance |
| 4.5 Days | Learn how to support the Safety Manager (SM) System with first-call maintenance. |

# SAFETY MANAGER SC

**Honeywell's Safety Manager SC is a logical evolution of the Safety Manager. It is operationally integrated with Experion® and meets the latest cyber security standards, ensuring safety, simplifying operations, and reducing costs by providing a single safety platform to support small packaged applications to a large distributed architecture.**

The TUV certified design allows for Honeywell's advanced features such as Sequence of Events, Alarm and Events, Dynamo® Alarm Management, Process Safety Analyzer and Field Device Manager.

| OVERVIEW | |
|---|---|
| SMSC-0004 | Safety Manager SC: Fundamentals - Overview |
| 1 Day | Gain an understanding of the different architectures of Safety Manager SC, an overview of the hardware and software, and its safety concept. |
| **OPERATION** | |
| SMSC-0003 | Safety Manager SC: Fundamentals - Operation |
| 1 Day | Learn about operating Safety Manager SC (SM SC) software, and the technical aspects of the System, including safety and availability considerations. |
| **IMPLEMENTATION** | |
| SMSC-0001 | Safety Manager SC: Fundamentals - Implementation |
| 4.5 Days | Learn how to implement Safety Manager SC (SM SC) projects, obtain knowledge of technical aspects of the System, along with some programming. |
| SMSC-0005 | Safety Manager SC: Fundamentals - On-Line Modification Implementation |
| 2 Days | Learn how to perform On-Line Modifications (OLM), including how to modify an application, upgrade to a newer software release, and adding or removing additional hardware online. |
| SMSC-0006 | Safety Manager SC: Advanced - Implementation |
| 5 Days | Learn about Safety Manager SC (SM SC) system's programming, diagnostics, and online changes and how to comply in practice with IEC 61511 when planning, managing, and executing these tasks. |
| **MAINTENANCE** | |
| SMSC-0002 | Safety Manager SC: Fundamentals - Maintenance |
| 4.5 Days | Learn how to support the Safety Manager SC (SM SC) System with first-call maintenance. |

# SAFETY MANAGEMENT SYSTEMS



> Honeywell's TÜV-certified Functional Safety Engineering course introduces participants to the concepts and practical application of the international safety standards IEC 61508/61511 and ISA S84.01.

The course follows the Safety Lifecycle all the way from SIS specification (hazard and risk analysis, SIL assignment, safety requirements specification) through the design and analysis phases (SIS architectures, SIL verification calculations) to the operations and maintenance phases (assessments and MOC). Successful participants receive the TÜV-issued Functional Safety Engineer certification.

| OVERVIEW | |
| --- | --- |
| SMS-4503-CT | Safety Mgmt. Systems: Certification - TÜV Functional Safety Program IEC 61508 SIL |
| 5 Days | Learn the IEC 61508, IEC 61511 and ISA 84.01 standards and implement its requirements in a structured manner. Successful participants receive the TÜV-issued Functional Safety Engineer certification. |

# FAIL SAFE CONTROLLER

The Fail Safe Controller® (FSC) is a user-programmable, Dual Modular Redundant (DMR) or Quadruple Modular Redundant (QMR™) microprocessor-based safety system which can perform a wide range of high-integrity process control and safety functions. It is integrated with the TPS (TotalPlant Solution) control system.

| OVERVIEW | |
|---|---|
| FSC-4501 | Fail Safe Controller: Fundamentals - Managers Overview |
| 1 Day | Learn the basic features and functions of the Fail Safe Controller (FSC) System, including operations, engineering, production, maintenance, purchasing, finance, and human resources. |
| **IMPLEMENTATION** | |
| FSC-4502 | Fail Safe Controller: Fundamentals - On-Line Modification Implementation |
| 2 Days | Learn how to modify an application, upgrade to a newer software release, and add or remove hardware online via exercises on Fail Safe Controller (FSC) Systems. |
| FSC-4508 | Fail Safe Controller: Fundamentals - Implementation |
| 4 Days | Learn to operate a Fail Safe Controller (FSC) System consisting of FSC, Stand Alone Computers, Universal Stations (US)/Global User Stations (GUS) and/or Experion Systems. |
| FSC-4512 | Fail Safe Controller: Advanced - Implementation |
| 5 Days | Learn programming and operating the Fail Safe Controller (FSC) System on a more advanced level, utilizing fault-finding techniques and diagnostics, and making online configuration changes. |
| **MAINTENANCE** | |
| FSC-4505 | Fail Safe Controller: Fundamentals - Maintenance |
| 4 Days | Learn to support the Fail Safe Controller (FSC) System with first-call maintenance. |

# CONTROLEDGE

**ControlEdge™ programmable logic controller (PLC) is one of Honeywell's first IIoT-ready controllers. When combined with Experion®, ControlEdge PLC provides secure connectivity and tight integration to devices from multiple vendors and works with any SCADA system.**

ControlEdge™ RTU is a powerful, modular, and scalable controller capable of all remote automation and control applications. In conjunction with Honeywell's feature-rich SCADA products, it provides an integrated solution that solves complex remote automation requirements for distributed equipment. With Experion® SCADA, it helps users visualize what they need to know to simplify management of field assets and reduces configuration time by 80%. The RTU is now enhanced with native redundancy, expanded input/output (I/O) modules, and built-in wireless and HART I/O.

| IMPLEMENTATION | |
|---|---|
| CTE-0001-AT | ControlEdge: Fundamentals - PLC (with Experion PKS Integration) Implementation |
| 2 Days | Learn how to configure and implement ControlEdge™ PLC, integrate with Experion, and an overview of maintenance tasks. |
| CTE-0002-AT | ControlEdge: Fundamentals - RTU (with Experion PKS Integration) Implementation |
| 2 Days | Learn to plan, operate, and integrate ControlEdge RTU System; configure and program RTU for communication with SCADA servers such as Experion and asset management systems like FDM; program RTU for performing metering functions compliant to AGA standards for gas and API 11.1, API 21.1 standards for liquids; and configure and commission Wireless I/O in RTU; report generation using EFM functionality. |

# HC900

The Honeywell HC900 Controller is an advanced loop and logic controller offering a modular design to satisfy the control and data management needs of a wide range of process equipment.

When combined with the optional 900 Control Station operator interface that is tightly integrated with the controller's database, configuration and setup time is minimized. In addition, open Ethernet connectivity with Modbus TCP Protocol allows network access using a variety of HMI/SCADA software.

| IMPLEMENTATION | |
| --- | --- |
| HC-0002-AT | HC900: Fundamentals - Hybrid Controller and Control Station Implementation |
| 4 Days | Acquire an understanding of the HC900 Hybrid Controller and Control Station system architecture, configuration methods and commissioning tools. |

# MASTERLOGIC

MasterLogic programmable logic controllers (PLCs) are modular, scalable and rack-based. The PLCs are available as stand–alone products as well as distributed with peer-to-peer connections. The CPUs, power supplies and rack sizes are available in various models to suit different applications.

| IMPLEMENTATION | |
|---|---|
| ML-1001-AT | MasterLogic: Fundamentals – 200R Implementation |
| 4.5 Days | Learn the basic concepts and strategies needed to develop guidelines for effective and consistent planning of the MasterLogic 200R (ML200R). |

# EXPERION LX

The Experion LX is Honeywell's unified control system for process, business, and asset management that helps industrial manufacturers increase their profitability and productivity and accessibility to local support without sacrificing quality and reliability in an increasingly competitive environment. Experion takes customers beyond distributed control system (DCS) functionality with an advanced automation platform solution and innovative application integration to improve business performance and peace of mind.

| IMPLEMENTATION | |
|---|---|
| ELX-0004C3 | Experion LX:Fundamentals - Planning, Design, Control Configuration, And C300 Controller Implementation |
| 5 Days | This course covers the Installation and operations of the Experion LX Server and Station. C300 Controller Implementation, and building basic operator graphics. |
| ELX-0004UOC | Experion LX:Fundamentals - Planning, Design, Control Configuration, And UOC Controller Implementation |
| 5 Days | This course covers the Installation and operations of the Experion LX Server and Station. UOC Controller Implementation, and building basic operator graphics. |
| MAINTENANCE | |
| ELX-0003 | Experion LX: Fundamentals - Operations And Maintenance |
| 5 Days | This course explains the Experion LX System overview and provides participants the ability to navigate, monitor, and handle Alarms, Events and  process upsets. |

# PMD

The Experion® Process Knowledge System (PKS) is based on more than thirty years experience, involving over 10,000 installations in the Pulp, Paper and Printing Industry, as well as innovations developed in other process industries. Experion combines common control technology with industry-specific elements such as Process, Machinery and Drives (PMD) Technology and process knowledge solutions.

The PMD Controller is an open Fieldbus Controller that is used in PMD technology to control Fieldbus-based processes and process equipment. The PMD Controller includes all the properties required for the control of continuous and batch processes, machines and stand-alone drives and line drives. Its control tools cover the conventional controls and logic, plus the advanced control methods such as fuzzy logic, neural net, optimization, multivariable control, and statistical process control.

| OVERVIEW | |
| --- | --- |
| PMD-0001 | PMD: Fundamentals - New Releases Features Overview |
| 2 Days | Learn the essential new features of the latest PMD release. |
| PMD-70 | PMD: Fundamentals - New Features of TotalPlantAlcont - PMD Upgrade Overview |
| 2 Days | Learn the differences and changes to system structure and application provided by system upgrade from TotalPlant Alcont platform to Experion® Process Knowledge (PKS) PMD platform. |
| **OPERATION** | |
| PMD-01 | PMD: Fundamentals - User Operation |
| 1 Day | Learn about control room functions and how to control the process using the HMIWeb user interface. |
| **IMPLEMENTATION** | |
| PMD-20 | PMD: Fundamentals - Applications Implementation |
| 4 Days | Learn the control room functions, how to control the process by using HMIWeb user interface, and the application planning of control and logic loops. |
| PMD-22 | PMD: Fundamentals - Applications Advanced Implementation |
| 3 Days | Learn the application planning of interlocks, cascade, and logic sequence loops. |
| PMD-24 | PMD: Fundamentals - HMIWeb Display Builder Implementation |
| 2 Days | Learn the planning and configuration of displays and pictures. |
| PMD-42 | PMD: Advanced - Profibus Interfaces Implementation |
| 2 Days | Learn to configure a Profibus System, its operations, and diagnostic capabilities. |
| PMD-0002 | PMD: Advanced - PROFINET Interfaces Implementation |
| 2 Days | Learn to configure a PROFINET System, its operations, and diagnostic capabilities. |
| PMD-0003 | PMD: Fundamentals - Virtualization Implementation |
| 2.5 Days | Learn the concepts, structure, functioning and administration of a virtualized PMD System. |
| PMD-0004 | PMD: Fundamentals - HMIWeb Display Builder Configuration and Implementation |
| 2 Days | Learn the planning and configuration of R920 displays and pictures. |
| **MAINTENANCE** | |
| PMD-30 | PMD: Fundamentals - Maintenance |
| 3 Days | Learn about the system structure and functions focused on system maintenance. |
| PMD-32 | PMD: Advanced - Maintenance |
| 2 Days | Learn about advanced system maintenance, troubleshooting and repair. |

# EXPERION MX

The Experion® MX training program focuses on guiding participants in the proper maintenance of the Experion MX Q4000-80 scanners.

| OVERVIEW | |
|---|---|
| EMX-0011-AT | Experion MX: Fundamentals - Maintenance Overview |
| 2 Days | Learn the information about the Experion MX Quality Control System that may be used in support of operation and maintenance roles. |
| **OPERATION** | |
| EMX-0027-AT | Experion MX: Fundamentals - Cross Direction Control Operation |
| 2 Days | Learn to operate the R701 Cross Direction controls on an Experion MX Quality Control System. |
| **MAINTENANCE** | |
| EMX-0001 | Experion MX: Fundamentals - Scanner Setup and Maintenance |
| 5 Days | Learn the skills required to maintain the Experion MX Q4000-80 scanner. |

# MXPROLINE



## Honeywell's MXProLine quality control system (QCS) offers a broad range of online scanners and sensors to help users select the measurement system best suited to their web gauging applications.

The MXProLine training program focuses on proper maintenance of the QCS, including proper setup and configuration of the system as well as of MD and CD controls. See the Courses tab for detailed information on the various courses available.

| IMPLEMENTATION | |
|---|---|
| MXP-0003-AT | MXProLine: Fundamentals - System Implementation |
| 3 Days | Learn how to set up the MXProLine software to meet users' requirements. |
| **MAINTENANCE** | |
| MXP-0004-AT | MXProLine: Fundamentals - Scanner and Sensor Maintenance |
| 2 Days | Learn how to set up and maintain these families of scanners: 4080, 5080, 6080 and learn how to maintain these sensors: 2213, 2214, 4203, 4217, 4264, 4405, and the LIB sensor and C-Frame. |

# UNIFORMANCE PHD



> Honeywell's Uniformance® Process History Database (PHD) provides a rich, flexible environment for the collection, storage, and analysis of process data. Its collector/shadow architecture allows data to be gathered from disparate control systems and other data sources, into a unified database for long-term storage.

The PHD database may be centrally configured and managed, gathering data from many systems including Honeywell Experion® Process Knowledge System (PKS) and TotalPlant® Solution (TPS), OPC Servers, and other third-party sources. This data is "shadowed" into a single centralized database, allowing engineers and plant management to analyze the performance of the entire operation from a single location.

| ADMINISTRATION | |
|---|---|
| UNI-0004 | Uniformance PHD: Advanced - Interfaces and System Administration |
| 3 Days | Gain in-depth knowledge of tools, interfaces, API's and configuration of the Uniformance® Process History Database (PHD) system. |
| MAINTENANCE. | |
| UNI-0003 | Uniformance PHD: Fundamentals - Process Studio, Insight and System Maintenance |
| 4 Days | Gain the knowledge of features, tools, and capabilities of the Uniformance® Process History Database (PHD) system, Uniformance Process Studio and Uniformance Insight standard features. |

# HONEYWELL UNISIM DESIGN



The UniSim® family of software products improve plant performance and overall business results for the process industry. UniSim Design is an intuitive and interactive process modelling offering that enables engineers to create steady-state and dynamic models for plant design, performance monitoring, troubleshooting, operational improvement, business planning and asset management.

| IMPLEMENTATION | |
| --- | --- |
| USD-0001 | Honeywell UniSim Design: Fundamentals - Process Modelling Using UniSim Design |
| 2 Days | Learn how to build, evaluate, and optimize steady-state process flowsheets using UniSim Design, as well as learn techniques and shortcuts for efficient use of the program. |
| USD-0002 | Honeywell UniSim Design: Advanced - Process Modelling Using UniSim Design |
| 2 Days | Learn how to use and apply advanced modelling techniques to enhance existing UniSim Design models. |
| USD-0003 | Honeywell UniSim Design: Fundamentals - Dynamic Modelling Using UniSim Design |
| 3 Days | Learn how to develop the skills and understanding required for creating and running dynamic simulations using UniSim Design Dynamics. |

# HONEYWELL ADVANCED PROCESS CONTROL



**Honeywell Advanced Process Control (HAPC) products address all aspects of advanced process control and optimization from improving regulatory loop control to globally optimizing the entire process using a unique layered approach.**

This model allows new technologies to be easily added at any time to a common platform that meets optimization objectives without compromising on future opportunities to improve business performance. Delivered through the unified Experion® Process Knowledge System (PKS) architecture, Honeywell's HAPC products improve profitability by increasing throughput, reducing costs, increasing yields, and improving product quality.

Honeywell Advanced Process Control is a broader suite of products which include multuvariable predicitve controllers, Soft sensors, Unit and Site-wide optimizers and Control asset monitoring tools.

Control Performance Analytics- Unified (CPA-U) monitors all control assets present in a process plant, whether it is advanced process control or regulatory loop control. It creates a common workflow linking PID performance to MPC performance thereby globally optimizing the entire process using a unique layered approach.

It prevents the expensive 'Run to failure' or Regular Preventative Maintenance model to a successful management plan which improves efficiency while reducing total cost of ownership. Delivered through the platform independent technology enabling monitoring various technologies under the same umbrella.

| IMPLEMENTATION | |
|---|---|
| HAPC-0001 | Honeywell Advanced Process Control: Fundamentals - Process Controller Implementation |
| 4.5 Days | Get a fundamental understanding of multivariable predictive control design and hands-on implementation using Process Controller software. |
| HAPC-0003 | Honeywell Advanced Process Control: Fundamentals - Soft Sensor Modeling With Inferential SW Implementation |
| 3.5 Days | Get a fundamental understanding of the design and implementation of Steady State Inferential Models also referred to as Soft Sensors. Basic data analysis concepts and statistical metrics will be covered with particular emphasis on the practical application of regression models. |
| HAPC-0004 | Honeywell Advanced Process Control: Advanced - Process Controller and Multi-Unit Optimizer Implementation |
| 4.5 Days | Designed for experienced users of Process Controller. This course emphasizes enhancing the user's understanding of how tuning parameter values directly affect the control and optimization solutions, through expanded explanations of algorithm details and interactive simulation labs. |
| HAPC-0006 | Honeywell Advanced Process Control: Fundamentals - Control Performance Analytics-Unified - Regulatory User Implementation |
| 1.5 Days | Gain a comprehensive user guidance after deploying CPA-U. Learn about CPA-U KPIs and how to make use of them. |
| HAPC-0007 | Honeywell Advanced Process Control: Fundamentals - Control Performance Analytics-Unified - MPC User Implementation |
| 1.5 Days | Provide a comprehensive user guidance after deploying CPA-U. Take the user through CPA-U KPIs and help Process Engineers and Process Control Engineers how to make use of them. |
| MAINTENANCE | |
| HAPC-0002 | Honeywell Advanced Process Control: Fundamentals - Process Controller Maintenance |
| 4.5 Days | Designed for process Control Engineers to enhance their understanding of the Process Controller package, to learn how to evaluate the performance of their applications, and to adjust the application models and tuning parameters for improved controller performance. Steps for methodical troubleshooting are presented and reinforced with hands-on laboratory exercises. |
| ADMINISTRATION | |
| HAPC-0005 | Honeywell Advanced Process Control: Fundamentals - Control Performance Analytics-Unified - System Administration |
| 3 Days | Get an introduction to CPA-U installation and various configuration using Configurator. Learn about the Analysis Designer, Messaging Service, Common Asset Model (CAM), Data Access Services (DAS) plugin, embedded PHD and SQL databases. Learn how to use and configure CPA-U web report for analyzing, filtering and benchmarking reports. |

# HONEYWELL BLENDING AND MOVEMENT



By delivering complete planning, execution, and performance monitoring of blending and movement operations, Honeywell's blending and movement products optimize in-line blending and improve safety and reliability of off-sites, terminal, and tank farm operations to increase plant profitability and minimize incidents.

These products provide and execute formulations that meet inventory constraints, delivery schedules, and product specifications, while also facilitating data analysis and determining key performance indicators.

| MAINTENANCE | |
|---|---|
| HBM-0001 | Honeywell Blending And Movement: Fundamentals - Blend Controller (BC) Maintenance |
| 2 Days | Learn to use Blend Controller (BC) which covers application functional overview, application setup & monitoring, software structure & configuration, and troubleshooting & maintenance. |
| HBM-0002 | Honeywell Blending And Movement: Fundamentals - Inventory Monitor (IM) Maintenance |
| 1 Day | Learn to use Inventory Monitor (IM) which covers application functional overview, application setup & monitoring, software structure & configuration, and troubleshooting & maintenance. |
| HBM-0003 | Honeywell Blending And Movement: Fundamentals - Movement Management (MM) Maintenance |
| 5 Days | Acquire the knowledge relating to Movement Management (MM) concepts and individual modules, including practical experience in using and configuring MM. |
| HBM-0004 | Honeywell Blending And Movement: Fundamentals - Blend Optimizer (BO) Maintenance |
| 2 Days | Learn to use Blend Optimizer (BO) in a combined lecture and lab environment. |
| HBM-0008 | Honeywell Blending And Movement: Fundamentals - Movement Management – Movement Monitor (MM-MM) Maintenance |
| 3 Days | Acquire knowledge about Movement Management – Movement Monitor (MM-MM) concepts and individual modules, including practical experience in using and configuring MM-MM. |
| HBM-0009 | Honeywell Blending And Movement: Fundamentals - Movement Management – Movement Control (MM-MC) Maintenance |
| 2 Days | Acquire knowledge about Movement Management - Movement Control (MM-MC) concepts and features, including practical experience in using and configuring MM-MC. |

# HONEYWELL ALARM MANAGEMENT



Poor alarm management is often a key factor leading to incidents and accidents at process plants, resulting in high financial costs and sometimes, even loss of life. Honeywell offers a training course to assist in effective usage of Honeywell Alarm Management tools.

| IMPLEMENTATION | |
| --- | --- |
| HAM-0002 | Honeywell Alarm Management: Fundamentals - Effective Usage Implementation |
| 4 Days | Get an introduction to the configuration and usage of the Honeywell Alarm Management (HAM) product suite. Gain the skills and knowledge to optimize Operator effectiveness and eliminate incidents or reduce their impact. |
| HAM-0003 | Honeywell Alarm Management: Fundamentals - Best Practices And Techniques Implementation |
| 2.5 Days | Gain an understanding of the best practices in Honeywell Alarm Management and the techniques used to apply them. |
| ADMINISTRATION | |
| HAM-0001 | Honeywell Alarm Management: Fundamentals - Installation And System Administration |
| 4 Days | Get an introduction to the configuration and usage of the Honeywell Alarm Management (HAM) product suite. Gain the skills and knowledge to optimize Operator effectiveness and eliminate incidents or reduce their impact. |

# HONEYWELL WORKFORCE COMPETENCY



Improve plant asset safety, reliability, and performance with Honeywell Workforce Competency. Train operators and engineers on how to respond during upset conditions to reduce potential incidents. Improved profit recognition and business performance is ensured by additional days of production achieved through safe, reliable, and efficient plant operation.

| OPERATION | |
|---|---|
| HWC-0001 | Honeywell Workforce Competency: Fundamentals - Instructor Operation |
| 3 Days | Become confident users of the training functions of Honeywell Process Training Simulator ready to deploy the acquired skills and knowledge in their own classroom. |
| **IMPLEMENTATION** | |
| HWC-0002 | Honeywell Workforce Competency: Fundamentals - Configuration Implementation |
| 3 Days | Gain the skills to maintain the simulation model at the heart of the simulator, as well as receive guidance on how a UniSim® Design model can be deployed in simulation context. |
| HWC-0005 | Honeywell Workforce Competency: Fundamentals - Experion Implementation |
| 3 Days | Learn to maintain Honeywell Workforce Competency Process Training Simulator and Experion interface. |
| **Administration** | |
| HWC-0004 | Honeywell Workforce Competency: Fundamentals - System Manager Administration |
| 2 Days | Learn to maintain Honeywell Workforce Competency Process Training Simulator to ensure system reliability. |

# ONEWIRELESS



## Course participants will be able to understand how Honeywell's OneWireless™ network provides industrial manufacturers with a multifunctional network that can support applications with end-to-end security.

The participants will be guided on connecting the OneWireless network to a DCS system and integrating OneWireless with the Experion® Process Knowledge System (PKS). Participants will also learn how to commission and configure Honeywell's XYR 6000 family of industrial wireless transmitters that enable automated variable monitoring in areas difficult to access with hard-wired devices.

| IMPLEMENTATION | |
| --- | --- |
| OW-0002 | OneWireless: Fundamentals – ISA Wireless System Implementation |
| 3.5 Days | Learn to monitor the OneWireless™ System effectively and configure a Wireless Device Manager (WDM) and a Field Device Access Point (FDAP) to enable access and management of ISA100.11a field instruments and Wi-Fi devices. |

# INDUSTRIAL TOPICS



Honeywell's training courses on Industrial Topics focuses on a wide range of industrial training options that are specific to participants' automation applications and solutions.

| OVERVIEW | |
|---|---|
| INDT-0008-AT | Industrial Topics: Fundamentals - Power and Grounding Overview |
| 1.5 Days | Learn about AC power distribution and AC quality, Grounding Principles and Common Ground Types, plan Honeywell Controller Grounding, installation of Cables, and understand grounding requirements for Honeywell DCS and Safety Systems. |

# FIRE DETECTION SYSTEMS



Complimenting Honeywell's industry leading Experion PKS distributed control system and Safety Manager systems are the XLS140 and XLS3000 Fire Detection, Suppression and Mass Notification Control Systems.
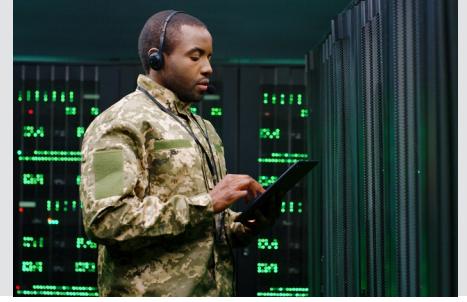
The XLS Platform provides the final dimension of personnel and facility protection by combining UL-Listed and NFPA 72 compliant control panels with industry-leading detection devices. Whether the requirements are for basic thermal and smoke detection or advanced fire and gas detection with Suppression Activation, the XLS Series provides the flexibility to comply. The XLS Platform also offers options for advanced Mass Notification and Communications Functionality throughout the facility.

The XLS System performance is further enhanced by the availability of a fully UL-Listed Interface to the Enterprise Buildings Integrator (EBI), or Fire Safety Manager Graphical Workstations. Interfaces are also available for Honeywell's Safety Manager and Experion PKS as well as other platforms through Modbus and BACnet Gateways.

| IMPLEMENTATION | |
| --- | --- |
| FDS-0001 | Fire Detection Systems: Fundamentals – XLS140/XLS3000 System Programming, Commissioning and Implementation |
| 5 Days | Obtain the knowledge, skills and tools required to properly Startup, Program, Commission, Operate and Maintain XLS120, XLS140 and XLS3000 Fire and Gas Detection Systems. |

# CYBERSECURITY



Honeywell's industrial cybersecurity training solutions are designed to help users become familiar with industrial cybersecurity standards, solutions, assessment, and countermeasures. The training courses are useful to those just embarking on their journey as well as to those looking to further advancing their skills.

| CS-0001 | Cybersecurity: Advanced - Honeywell Application Control/Whitelisting Workshop. |
|---|---|
| 2 Days | Gain an in-depth, technical, configuration, and operational understanding of Honeywell Application Control/ whitelisting endpoint security solution. |
| CS-0002 | Cybersecurity: Advanced - Industrial Offensive and Defensive Cybersecurity Principles: Red Team / Blue Team Workshop. |
| 4 Days | An unique insight into the hacker's mindset and techniques, helping students develop defensive strategies. |
| CS-0003 | Cybersecurity: Advanced - Industrial Cybersecurity Standards and Best Practices. |
| 3 Days | To expand the awareness of systems owners on industrial cybersecurity and global Cybersecurity standards. |
| CS-0004 | Cybersecurity: Fundamentals - Industrial Control Systems (ICS) Cybersecurity Awareness . |
| 1 Day | Learn the concepts of the current cybersecurity landscape, the importance of securing control systems from cyber-attacks and concepts for implementing mitigation strategies. |
| CS-0005 | Cybersecurity: Advanced - Cybersecurity Incident Management |
| 2 Days | Gain understanding on incident management process in Industrial Control System environment and incident response steps along with practical hands-on exercises. |

# TRACE

Honeywell Trace software documents your system configuration, helps manage and document changes by capturing system information, configuration settings, and performance conditions.

| OVERVIEW | |
|---|---|
| TRC-0001-AT | Trace: Fundamentals - Usage And Overview |
| 1 Days | Learn how to use Trace software effectively for your installed base. |

**For more information**

To learn more about Honeywell Academy,
visit https://process.honeywell.
com/us/en/services/training.

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