Performance Learning Platform

- Scenario-based, hands-on, flexible learning platform
- Portable live process controlled by DeltaV
- Includes Rosemount, Micro Motion, Fisher, and ASCO technologies
- Can be customized to meet your specific needs
- Supports a variety of process- and technology-related instruction
- Supported with video tutorials, eLearning courses, and Emerson lab workbook

Introduction

The Performance Learning Platform is constructed from process control technology used in real processes and can be used to train students on instruments used to monitor and control industrial processes including temperature, pressure, flow, level and final control valves. The Performance Learning Platform features control loops for flow control and tank level as well as the possibility to create cascade control loop strategies within a fully functioning DeltaV distributed control system.

The Platform DeltaV Control System incorporated with process instrumentation from Rosemount Measurement, Micro Motion, Rosemount Flow, Rosemount Level and Fisher Final Control Valves delivers a plant-like experience to the classroom. Designed to meet long-term, diverse classroom needs ranging from process control and instrumentation learning objectives to technical certification programs, the platform comes with a flexible hardware configuration design, open process control configuration environment for future modifications, a task-based performance support video library, and built-in safety features, as well as a support agreement that provides affordable equipment coverage for years of service.

Benefits

- Improves knowledge and skill transfer by enabling hands-on training with a real process.
- Enables both process instrumentation and automation fundamentals and refresher training on process instrumentation and control system in a safe environment: Easily add batch process control and automatic batch historical event collection using DeltaV Batch Executive, Batch Historian, and Advanced Unit Management applications.
- Portable, scalable and customizable training platform Lab environments and maintenance shops can be space limited. The Performance Learning Platform is a lot of real-world automation that requires a very small footprint. Just add water, a compressed air supply and power and it’s ready to go.
- Upskill your existing staff and a new generation of workers to become adept at applying, using and maintaining the latest digital automation technologies.
Product Description

The Performance Learning Platform is a workforce development platform designed to provide hands-on training for the process industry. It provides a cost-effective automation training solution for higher education and end-user training applications. It utilizes a closed-loop piping system, two tanks and pumps on a portable, easy-to-move. The compact, flexible design allows it to fit through a standard size door. The Performance Learning Platform is a plug-and-play training platform; just add water, provide an air supply, power it up and it’s ready to go. The Performance Learning Platform, includes:

- Control System with Touchscreen HMI
- Flow Measurement
- Flow Control
- Level Control
- DP Level
- Guided Wave Radar Level
- Pressure Management
- Temperature Management
- Digital Valve Control

Control System & Workstation

Each Performance Learning Platform comes with a DeltaV distributed control system. Each system will utilize Emerson’s DeltaV PK Controller in standalone mode as well as DeltaV Electronic Marshaling. The DeltaV PK Controller brings fast logic execution and built-in native Ethernet device protocols enabling it to address a wide variety of applications from skid-units to large-scale traditional control operations. The system includes a Pro + workstation in a 17” hardened HMI mounted on a strong arm. See figure 1.

![Figure 1](image-url)
**Performance Support Video Library**

Performance Learning Platform includes an easy-to-use task-based performance support video library. The video library will be deployed at each workstation. The user will open and navigate the task-based videos via an interactive home page. The home page contains hotspots (images of the actual process instrumentation) that the student will click on to view the relevant videos. A typical video includes audio, animations, and step-by-step instructions. The videos cover relevant preventative maintenance topics on DeltaV, Fisher Valves, Rosemount Measurement, and Flow.

The PLP comes with a print (or digital) workbook that includes:

**Lab Workbook**

- Lab training scenarios with a general overview of the PLP, its components, flowloops, architecture, and its control system configuration.
- Walking down the PLP, viewing each device display and its information, using AMS software or a handheld communicator to record device information.
- Instrument device best practices and specific troubleshooting with topics that include: changing parameters in a device, how it is connected to DCS parameter, how to cross check to ensure functionality.
- DeltaV configuration elements including modes of operation, SP, PV, BCAL, etc. in preparation of trouble-shooting.
- Lessons on P&IDs and schematics to familiarize user with the wiring for a control system.
- A series of scenarios on recording voltage readings at key locations during different states of operation (supported with a separate instructor lab book) to allow for trouble-shooting of instructor-initiated failures exercises to walk the student through industry 4.0 / IIoT / digital transformation.

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**Dimensional Drawing**

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Performance Learning Platform Options:

**Base Unit:** Includes flow loop 1 Orifice Plate with Rosemount 3051 DP and flow loop 2 is a Vortex Shedder

**Option A:** Flow loop 2 is a Magnetic Flow Meter in lieu of Vortex

**Option B:** Adds a 3rd flow loop, which can be either Coriolis meter, Magnetic or Vortex

**Option C:** Custom Quote to Order

Related Products

- eLearning Courseware covering topics including theory of operation, installation best practices, device configuration, and troubleshooting.
- Performance Learning Platform Lab Workbook.

How to Request a Proposal

- Each PLP inquiry will be handled as a project request until further notice.
- Request a PLP proposal via workforcedevelopment@emerson.com.