

Advanced Process Control with Profit Loop Implementation



Course Overview

Course number: 4521

Course length: 4-5 days

Are you in the process of, or thinking about, replacing troublesome PID loops with Profit Loop, Honeywell's SISO predictive controller that runs in the AM?

This course provides a fundamental understanding of SISO (Single Input – Single Output) predictive control design and hands-on implementation using Profit design Studio and Profit Loop. After a brief introduction to basic control concepts, Profit Loop control concepts will be presented. The workings of Profit Design Studio is presented to provide an in-depth understanding of the model identification tools and exercises will be used extensively throughout the course to illustrate how to obtain high quality dynamic models. Software installation of Profit Loop in the AM is covered extensively.

Course Benefits

Implement Profit Loop from A to Z

- Introduction to predictive control concepts
- Learn about Profit Loop differentiating features
- Gain the basic skills required to design a plant step test and identify dynamic models using Profit Design Studio
- The ability to use the software tools to build and test the Profit Loop before commissioning
- How to install the controller and bring it on-line, and finally how to commission
- Gain the skills to implement new Profit Loop controllers and maintain existing
- Conduct operator training

Course Delivery Options

- On-Site Instructor-Led Training

Who Should Take This Course?

Customers who are using Profit Loop:

- Responsible for new implementing and/or supporting an existing Profit Loop implementation

Prerequisite/Skill Requirements

Prerequisite Course(s)

- Understanding Basic Process Control

Required Skills and/or Experience

- None

Desirable Skills and/or Experience

- Knowledge of process dynamics
- Familiarity with Honeywell's Profit Suite software

Course Topics

You will learn how to....

- Determine where to apply Profit Loop and how to benefit most from a SISO predictive controller
- Design and carry out a well planned plant test
- Identify dynamic models from raw data obtained from a plant test
- Build the controller model file needed for the on-line implementation of Profit Loop
- Simulate a Profit Loop controller off-line with the objective of performing preliminary tuning and stress testing before on-line commissioning
- Use the LCN Profit Loop master point detailed displays and embedded displays to interact with the controller
- Install controller software step by step in the AM
- Activate a controller, verify i/o and verify tuning
- Compare the performance of Profit Loop with Profit PID and a controller using IMC tuning
- Use the min-max search technique for optimal tuning constants for Profit PID
- Handle Asynchronous signals (Analyzers)
- Perform Database Search operations
 - Parameter search
 - Where Used search

Additional Training

To increase your knowledge and skills, there are additional courses available from Automation College.

For more information and registration, visit www.automationcollege.com.