

## Practical Process Control (E-CPAS)

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### Objectives

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This training provides information about possible measures to be taken in a process after a profound control loop analysis by Siemens Plant Data Services. The training allows the participant to gain advanced knowledge about the theory of PID tuning principles and encourages him to put this into practical experience by relevant exercises. At the same time, the participant will become familiar with specific tuning methods and tools.

### Target Group

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Maintenance and commissioning personnel and programmers

### Content

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Process behavior (Gain, Process delay or dead-time, Integrating process, First order system, More complex dynamics)  
Design and principle of operation of the standard PID controller  
How to set up a control structure in a PCS7 environment (Control structure selection, Process value, Manipulated value, Disturbances, Cascade control, Split-range control, Smith predictor, Gain Scheduling)  
Computer-aided optimization of control loops (PID-Tuning)  
Control performance management  
Control Performance Analytics Service (Motivation for CPAS, CPAS methodology, CPAS KPI's, dedicated diagrams)

### Prerequisites

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Basic knowledge of process control engineering  
Practical experience in configuration of SIMATIC PCS 7

### Note

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Course documentation: English  
Trainer: Dutch - French - English

### Type

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Face-to-face training

### Duration

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2 days

### Language

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en