Course description

F871
Automation Products AC500 Beginner Training Course

Course goal

The objective of this course is to acquire IEC61131-3 basic programming skills for AC500 controller and associated I/O, using DMTool programming software.

Learning objectives

Upon completion of this course the participants will be able to:

- Explain the AC500 architecture and the functions of the different components.
- Fundamentals of how to compose a program
- Create a new project and configure the structure of application programs.
- Navigate and use the system libraries.
- Configure the AC500 hardware with corresponding I/Os.
- Design and configure application programs by using a different type of IEC61131-3 languages.
- Set-up CPU execution times and monitoring loading.
- Create and configure a network with AC500 using Ethernet

Participant profile

This training is targeted to Beginners to programming.

Prerequisites

This course is for beginners so a basic knowledge of control would be preferable.

Topics

- System AC500 architecture
- PS501 Control Builder Plus
- Project and application structures
- AC500 hardware configuration components
- CoDeSys visualization
- Web Server
- AC500 Libraries
- SD memory card presentation

Course type and methods

This is an instructor led course with interactive classroom discussions and associated lab exercises. Approximately 50% of the course is hands-on lab activities.

Duration

The duration is 2 days.

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Course outline

Day 1	Day 2
09:00 Introduction Who am I how do PLC's fit in?	09:00 Recap
09:05 Is your PS501 installed correctly?	09:05 PRG Example 2: Add Visu (Time dependant)
09:10 Hardware Introduction Presentation	10:00 **Coffee**
10:10 **Coffee**	10:15 Programming according to IEC61131-3
11:00 How to navigate PS501: Practical: Open Project	11 :00 AC500 system configuration (Show fieldbus adding of drives etc)
12:00 Addresses Presentation	15:00 **Diagnosis &** Errors add and remove hardware show PLC browser and PLC online funtion
12:30 Lunch	12:00 Lunch
13:00 How to compose a program	12:30 PRG Example 3: Traffic Lights simulation (Ladder) Add Aux Hardware.
13:15 PRG Example 1: Add Blocks and VISU	13:30 PRG Example 3: Add PLC_Visu (Time dependant)
13.30 PRG Example 1: Test Simulation and then Test Online	14:00 PRG Example 3: Traffic Lights simulation (FBD)
14:00 Project structure and components POU's etc	14:30 Coffee
14 :30 **Coffee**	15:00 Web Server Visu's Online access
14 :45 Practal Generate and Diagnose Alarms (Show Hardware config)	16 :00 Finish
15 :00 Variables declaration (Global and Local)	
15 :30 Libraries	
15 :45 PLC Browser	
16:00 PRG Example 2: Pump Control	

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