Course description

A331
Advant Controller 400 Configuration and Programming

Course goal

The goal of this course is to learn how to do AMPL programming of Advant Controller 400 with On-line Builder (ONB) and Functional Chart Builder (FCB).

Learning objectives

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

- Program Advant Controller 400 using Advant Station 100 Series Engineering Stations. (Also applicable to the On-line Builder option for the Advant 500 Operator Station)
- Use equipment in normal operation

Participant profile

This training is targeted to system, process, and application engineers. Instrumentation, electrical, and service engineers.

Prerequisites

Basic knowledge of logic diagrams
Basic knowledge of how processes are controlled
Basic knowledge of MS Windows

Topics

- Advant OCS philosophy and products
- Block selection (PC-elements)
- AMPL programming methods
- How to define, dimensioning, and populate a database
- On-line Builder software (PC programming, dumping, loading, and parameter adjustment).
- Source code handling.
- Programming with AdvaBuild Function Chart Builder (FCB)
- Test of application
- Documentation

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 5 days.

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Course outline

Day 1	Day 2	Day 3	Day 4	Day 5
■ Course overview ■ System overview ■ Training equipment presentation ■ Signal flow, hardware-software-hardware ■ Advant Station 100 ES, getting started ■ Data base handling w/FCB ■ PC program structure	■ Review - Q/A session ■ AMPL programming w/FCB ■ Off line documentation ■ Generation and converting of Sourse code ■ Operation of the process controller and PC programs ■ Configuration and dimensioning with ONB ■ Upload of Source code ■ Monitoring and testing of application program	■ Review - Q/A session ■ Design of PC program, on-line ■ Test and backup of application program ■ Databases for analogue signals ■ Database and Program Extension (Redimensioning) ■ Documentation on line	■ Review - Q/A session ■ Database and Program Extension ■ Generation and converting of Sourse code ■ Backtranslate to FCB ■ Database and Program Extension in FCB ■ Off line documentation ■ Generation of Source code from FCB and upload of data to controller	■ Review - Q/A session ■ Start of controller and program testing ■ Safety backup and documentation ■ Program handling ■ Object control using functional units ■ DAT communication between PC programs ■ DAT communication between controllers ■ Summary ■ Evaluation

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