T568  Freelance Design Engineering

Using the fundamentals of a distributed control system, learn to engineer a Freelance system and become familiar with configuration and commissioning.

Workshop Goal
The goal of this course is to engineer a Freelance system and to become familiar with configuration and commissioning tasks.

Participant profile
This training is targeted to Freelance users and system integrators who need to get a comprehensive overview about the Freelance system capabilities.

Prerequisites and recommendations
Students shall know the fundamentals of working with Distributed Control Systems and have basic knowledge of IEC 61131-3 programming and of working with Microsoft Windows.

Workshop Objectives
Upon completion of this workshop, the student will be able to:

- Describe the network structure in the Freelance architecture
- Describe the functionality of the major system components
- Describe the structure of application programs i.e. variables, programs, tasks
- Configure and maintain objects in Freelance Engineering
- Configure the AC 700F controller with local I/O's
- Configure the AC 900F controller and establish fieldbus connectivity to corresponding Remote I/O's
- Create and maintain standard and user specific function blocks
- Load the controller and work in online mode
- Create and modify standard displays
- Manage and configure alarm and events
- Setup trends and configure historical data collection

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.

Main Topics
- Freelance system architecture
- Freelance Engineering
- Application structures
## Course Outline

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- AC 700F and AC 900F Hardware
- OPC communication
- Applications with Function Block Diagram (FBD) and Structured Text (ST)
- User function blocks
- Standard displays
- Trends
- Alarm and events
- Logs and reports
- Free graphics
- Sequential Function Charts
- Import / export
- Bulk data handling
- System documentation

### Duration

The duration is 4 days.

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**Days**

- Tuesday, 8:00 AM - 5:00 PM
- Wednesday, 8:00 AM - 5:00 PM
- Thursday, 8:00 AM - 5:00 PM
- Friday, 8:00 AM - 12:00 PM

**Location**

ABB Inc.
23000 Harvard Rd
Cleveland, OH 44122

**Registration**

Enrollments are a first come, first serve basis. Maximum class size of 12 students. To Enroll:
- Call 1-800-HELP-365 Option 2, Option 4
- Contact your local ABB control system distributor

Please have the purchase order sent to abbuniversity@us.abb.com