

# T568

## Freelance System Engineering

### Course goal

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

### Learning objectives

Upon completion of this course the participants 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 Control Builder F
- Configure the AC 700F controller with local I/O's
- Configure the AC 800F 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

### 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

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 XP.

### Topics

- Freelance system architecture
- Control Builder F
- Application structures
- AC 700F and AC 800F 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

### 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.



Course Outline				
Day 1	Day 2	Day 3	Day 4	Day 5
Course overview	Advanced configuration and commissioning	Standard displays	Sequential Function Charts (SFC)	System connectivity
Freelance system architecture	Applications with Function Block Diagram (FBD) and Structured Text (ST)	Trends	User function blocks	Bulk Data Manager
Control Builder F		Alarm and events		Import / export
Application structures		Logs and reports		System documentation
		Free graphics		



ABB (China) Ltd.

ABB University Beijing Center

Post Code: 100015

Universal Plaza, 10 Jiuxianqiao Lu, Chaoyang District  
Beijing, P.R. China

Phone: +86 10 84566688/64233141

E-Mail: [abb-university.china@cn.abb.com](mailto:abb-university.china@cn.abb.com)

<https://new.abb.com/service/abb-university/china>

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB (China) Ltd. does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB (China) Ltd. Copyright© 2017 ABB All rights reserved