N220 Symphony
System- and Engineering Basics

Course Duration

The duration is 5 days.

Course Type

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

Course Goal

The student knows the user surface of Maestro UX. The system structure and the interaction of the individual components are familiar to him. The participant understands the Maestro UX object configuration and the graphical display design to carry out changes and upgrades at existing objects and displays independently, and he is also able to prepare new objects and graphics. He has a basic knowledge of the system data backup and restore procedure.

Student Profile

For all Maestro UX system engineers and IT staff to acquire theoretical know how and practical experience in order to enlarge and modify existing and create new system functions of the process control level independently.

Prerequisites and Recommendations

Basic knowledge of the automation and computer technology.

Course Objectives

Upon completion of this course, students will be able to:

explain the system structure and the communication channels and to understand and to use the basics of the system operation

specify the hard and software modules of Maestro UX as well as explaining redundancies, central and distributed databases and the structure of the configuration workplaces

use the COL-Browser and the Object Filter

deal with Objects, Templates, Classes and text lists

modify and create the setup of objects independently

handle System- and Station objects to revise/create

configure the message management system, like archive, horns and user/profile objects, as well as message bars, message pages and protocol objects

define acknowledge right for the user

create new assembled displays

configure display assignments

develop independently free graphic displays or expand or change existing graphic displays by use of the Sherrill-Lubinski graphic editor

Submodels and pallets circulating and using static and dynamic Submodels with models

interact and utilize Models, Submodels and Pallets as well as static and dynamic Submodels

understand the policy to backup the Maestro UX objects and SL-graphic files as well as the their practice

ABB

Main Topics

Basics of the system operation, Maestro UX Operation and Observation level

Symphony system design, system structure and communication networks

Hard and software modules of Maestro UX, client/server principle, redundancy, central and distributed databases, structure of configuration workplaces

Integration von Composer, Control Builder-Freelance and Contronic P- Configuration

Dealing with the COL browser and the object filter

Bases for network techniques/-protocols/-services

Objects, Templates, classes and text lists

Standard objects, base objects, process control objects and objects of the operation level

Basics to modify and establish objects

Handling of System- and Station objects

Establishing of archive and horns functionality and the creation of user/profile objects

Configuring of objects for assembled displays: Group Display, Structure Display, Overview Display, Trend Display and Polar diagram

Configuring of general and user-specific Display assignments

Modify and expand process control objects

Configuration of the message management, like: user-specific message bars and message pages

Configuration the acknowledge rights of an user

Configuration of reports, like: establishing of Message-, State-, Audit- and Matrix Reports

Condition, business and matrix protocols reports configure of protocols, establish of

Protocol output to printer or alternatively to a data file

Configuration of free graphic displays by the use of the Sherrill-Lubinski graphic editor, Basic settings, move, align and group of graphical objects, Models, Submodels and pallets, internal and external Submodels, use of static and dynamic Submodels, SL graphics files, storage location and search paths

Backup of the Maestro UX automation objects and SL graphics files

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Course Description

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Course Outline

Day 1	Day 2	Day 3	Day 4	Day 5
• Course summary • Maestro UX System operation • System design, structure and communication networks • Hard and Software modules, redundancy, databases • COL-Bowser	• Basics for communication nets, Protcols and services • Objects, Templates, classes and text lists • Basics objects, process control objects, objects of the process control level • Modifying and creation of objects	• System and Station Objects • Assembled Displays • Display assignment • Modify and expand process control objects • Configuration of the message management −Message bar −Message page	• Archive-, horn-, profile objects • Protocols • Free graphic displays design by using the Sherrill-Lubinski editor • Basics settings • Models, Submodels • Paletts	• Using static and dynamic Sub models • Internal and external Submodels • Selfmade Submodels • Backup of Maestro UX automation objects and graphic files

ABB