Course Description
This course consists of lectures, demonstrations, laboratory exercises, and question and answer sessions designed to educate the learner in the system configuration, HIS and FCS builders, regulatory and calculation functions, sequence control programs, graphics and advanced function blocks.

Duration
7 days

Objectives/Outcomes
Upon completing this course, the learner will be able to exhibit the ability to:

- Practice with System View to create new projects
- Define field control station (FCS) and operator station (HIS) in a project
- Practice with HIS and FCS Configuration Builders
- Employ Feedback Control Instruments using Regulatory and Calculation Functions
- Design Sequence Control Programs using Sequence Tables and related components
- Design Graphic Windows
- Use the Report Package Builder
- Setup Project Data Backup, Tuning Parameter Backup and FCS Automatic Backup

Intended Audience
All plant personnel whom are responsible for the configuration and/or maintenance of a CS 3000 system. This course is also the prerequisite for the Foundation Fieldbus Engineering course.

Course Prerequisites
- The student must have completed either the CS 3000 Essentials course (7100) or CS3000 Maintenance (7300).

Technical Requirements
- Basic file/folder manipulation in a Windows environment
- Microsoft Excel – Basic Knowledge

Materials
Each learner will be provided with the appropriate course workbook and materials.

Requirements to Be Awarded Certification
- Submit completed course Registration Form
- Fulfill financial obligations
- Fulfill the 90% attendance requirement by signing-in each day of facilitated course
- Fulfill the 70% or above overall scoring requirement on labs and projects

Evaluation Methods
- Laboratory exercises
- Question and answer sessions
Course Syllabus

Day 1
- System Configuration using System View Builder File
- Create a New Project
- Definition of Initial Setup Items
- Create New FCS and HIS
- Configuration of Security Definition
- Exercises

Day 2
- Setup Items in the HIS Configuration Folder
- Create Help Dialog Message Window
- Create Control Graphic Window
- Create Overview Graphic Window
- Exercises

Day 3
- Define FCS Configuration Items
- Define Node Interface Units
- Define I/O Modules for Analog and Digital Points
- Configuration of Common Switches
- Define Operator Guide Messages, Annunciator Messages and Message Printout
- Exercises

Day 4
- Define different types of Regulatory Control and Calculation Function Blocks
- Define Input and Output Signal Processing
- Define Signal Wiring on Control Drawings
- Configuration of Function Block Detail
- Configuration of Report Package to Create and Run Reports
- Exercises

Day 5
- Define Sequence Control Elements
- Define and Configure Sequence Function Blocks
- Define and Configure Switch Instruments
- Create Graphic Window
- Exercises
Day 6
  o Course Project with Feedback and Sequence Control Function Blocks

Day 7
  o Define and Configure Advanced Function Blocks
  o Setup Project Data Backup
  o Setup FCS Automation Backup
  o Setup Tuning Parameter Backup
  o Exercises
  o Post Assessment

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