

Studio 5000 Logix Designer Level 4: Function Block Programming

OEM: Rockwell Automation • Duration: 2 Days (16 hrs) • Code: CCP152

COURSE MODULES & TOPICS

Objectives

- Create a function block diagram
- Program logical function block instructions
- Program timer and counter function block instructions
- Program analog function block instructions
- Program device driver function block instructions
- Select timing modes in a function block instruction
- Program a totalizer function block instruction
- Program and monitor an RMPS (ramp/soak) function block instruction
- Control program flow using function block instructions
- Program a PID loop using a function block diagram
- Tune a PID loop using ActiveX controls
- Develop an add-on instruction in function block diagram

Prerequisites

- Ability to perform basic Microsoft Windows tasks
- Understanding of basic measurement and control theory, including basic loop control
- Completion of the Studio 5000 Logix Designer Level 3: Project Development course (CCP143) or equivalent experience

Student Materials

- Student Manual contains the topical outlines and exercises and is used to follow presentations, take notes, and work through exercises
- Studio 5000 Logix Designer and Logix5000 Procedures Guide provides the steps required to complete basic software tasks common to all Logix5000 controllers

Course Agenda

Day 1

- Creating a Function Block Diagram
- Programming Logical Function Block Instructions
- Programming Timer and Counter Function Block Instructions

- Programming Analog Function Block Instructions
- Programming Device Driver Function Block Instructions
- Selecting Timing Modes in a Function Block Instruction

Day 2

- Programming a Totalizer Function Block Instruction
- Programming and Monitoring an RMPS (Ramp/Soak) Function Block Instruction
- Controlling Program Flow Using Function Block Instructions
- Programming a PID Loop Using Function Block Diagram
- Tuning a PID Loop Using ActiveX Controls
- Developing an Add-On Instruction in Function Block Diagram