COURSE NUMBER: CCP152

Course Purpose
This course is a skill-building programming course that provides you with an understanding of RSLogix™ 5000 function block diagrams and terminology. This course also provides you with the resources and hands-on practice required to efficiently program a Logix5000 controller using function block diagrams.

You will have an opportunity to use RSLogix 5000 software and perform software tasks to meet the requirements of a given functional specification. In addition to using function blocks, you will perform parameter modifications to individual function block instructions, as well as create and develop function block diagram programs and routines. You will also gain experience with a variety of function block instructions, including PIDE and add-on instructions.

Who Should Attend
Individuals who are responsible for developing, debugging, and programming Logix5000 controllers using RSLogix 5000 software with function block diagrams should attend this course.
Prerequisites
To successfully complete this course, the following prerequisites are required:

- Ability to perform basic Microsoft® Windows® tasks, such as using a mouse, browsing for files, opening, closing, sizing and moving windows
- Understanding of basic measurement and control theory, including basic loop control
- Completion of the RSLogix 5000 Level 3: Project Development course (Course No. CCP143) or equivalent experience

Technology Requirements
All technology is provided for student use in the classroom by Rockwell Automation. It is not necessary for students to bring any technology with them when attending this course.

Student Materials
To enhance and facilitate your learning experience, the following materials are provided as part of the course package:

- Student Manual, which contains the key concepts, definitions, and examples presented in the course and includes the hands-on exercises.
- RSLogix 5000 and Logix5000 Procedures Guide, which provides all of the steps required to complete common Logix5000 tasks. By following the procedures in this job aid, you can immediately apply what is learned in the course to your own job.

Hands-On Practice
To gain real-world programming experience, you will be given a functional specification for a fictitious batch process mixer, where bulk ingredients are mixed to produce a product. You will be the programmer for this batch mixer and must follow the functional specification, which will be the basis for all hands-on exercises in this course.

After completing all exercises, you will have developed a Logix5000 project for the fictitious batch process mixer. As you develop your project, you will be given opportunities to run it using a hardware workstation. This programming and process-based application experience can then be transferred to your own job responsibilities.

Next Learning Level
Once you have mastered the function block diagram skills covered in this course, you will be able to expand your Logix5000 programming knowledge by attending other Logix5000 programming courses, such as the RSLogix 5000 Level 4: Logix5000 Motion Programming Using Ladder Logic course (Course No. CCN142).

Course Length
This is a two-day course.

Course Number
The course number is CCP152

IACET CEUs
CEUs Awarded: 1.4

To Register
To register for this or any other Rockwell Automation training course, contact your local authorized Allen-Bradley Distributor or your local Sales/Support office for a complete listing of courses, descriptions, prices, and schedules.

You can also access course information via the Web at http://www.rockwellautomation.com/training

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COURSE AGENDA

Day 1
- Programming Assignments, Expressions and Instructions in Structured Text within an RSLogix 5000 Project
- Programming Constructs and Comments in Structured Text within an RSLogix 5000 Project
- Designing a Sequential Function Chart

Day 2
- Programming a Sequential Function Chart in an RSLogix 5000 Project
- Testing a Sequential Function Chart in an RSLogix 5000 Project
- Storing and Resetting Sequential Function Chart Data in an RSLogix 5000 Project
- Resetting and Pausing a Sequential Function Chart in an RSLogix 5000 Project

COURSE NUMBER: CCP154

Course Purpose
Building on your project development skills, such as creating tags and programming control code, this course provides the skills and knowledge to program using the structured text and sequential function chart programming languages.

You will learn how to select instructions, expressions and constructs and then enter these elements and more into a routine. You will have an opportunity to translate a functional specification into a sequential function chart. Also, you will learn how to test sequential function chart logic using forces and step-throughs.

The instructor will demonstrate the relevant procedures required to program with structured text and sequential function charts. You will be provided ample opportunities to create and test your own projects.
Who Should Attend
Individuals who are responsible for programming structured text and sequential function chart routines in RSLogix 5000 projects for any Logix5000 controller should attend this course.

Prerequisites
To successfully complete this course, the following prerequisites are required:

- Ability to perform basic Microsoft® Windows® tasks
- Completion of the RSLogix 5000 Level3: Project Development course (Course No. CCP143)
  OR
- Completion of the RSTrainer for RSLogix 5000 Software – Offline Programming computer-based training course
  OR
- Experience with basic RSLogix 5000 projects (navigating the software, creating tags, creating routines, etc.)

Technology Requirements
All technology is provided for student use in the classroom by Rockwell Automation. It is not necessary for students to bring any technology with them when attending this course.

Student Materials
To enhance and facilitate each student's learning experience, the following materials are provided as part of the course package:

- **Student Manual**, which contains the topical outlines and exercises. Students will use this manual to follow presentations, take notes, and work through the exercises.
- **RSLogix 5000 and Logix5000 Procedures Guide**, which provides all of the steps required to complete basic RSLogix 5000 software tasks that are common to all Logix5000 hardware platforms. By following the procedures in this job aid, you can immediately apply what is learned in the course to your own job.

Hands-On Practice
Throughout the course, students will have the opportunity to practice skills they have learned through a variety of hands-on exercises. Students will also have the chance to combine and practice several key skills by completing an integrated practice.

Next Learning Level
After mastering the skills covered in this course, students may be interested in attending other specialized courses, such as:

- RSLogix 5000 Level 4: Function Block Programming (Course No. CCP152)
- RSLogix 5000 Level 4: Motion Programming Using Ladder Logic (Course No. CCN142)

Course Length
This is a two-day course.

Course Number
The course number is CCP154.

IACET CEUs
CEUs Awarded: 1.4

To Register
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