

# Integrated Architecture

Introduction to the Integrated Architecture System



## Course Number

CIA101

## Course Purpose

After completing this course, you should be able to work with the Integrated Architecture® system and automation system technology, such as DeviceNet, ControlNet, EtherNet/IP, and the Studio 5000® engineering environment.

This course will assist you in developing and building a solid foundation of Integrated Architecture system knowledge. You will learn about and interact with a variety of automation hardware. You will also have an opportunity to use Rockwell Automation software to perform basic system configuration tasks.

While performing these tasks, you will gain an understanding of how controllers, drives, motors, networks, and HMI products function together within an Integrated Architecture system.

This introductory level course will give you a broad understanding of automation products and serve as an excellent first step when beginning any automation training.

## COURSE AGENDA

### DAY 1

- Identifying Components of the Integrated Architecture System
- Establishing Communications in an Integrated System
- Programming a Basic Logix Designer Project for an Integrated System
- Programming with Tag-Based Addressing in an Integrated System

### DAY 2

- Identifying Programming Languages in an Integrated System
- Understanding Logix 5000™ Multi-Discipline Control
- Understanding NetLinx-Enabled Networks
- Understanding the Visualization Development Environment of an Integrated System
- Understanding HMI Direct Tag Referencing in an Integrated System

## WHO SHOULD ATTEND

Individuals who have little or no working experience with automation systems and individuals interested in gaining a broad understanding of Integrated Architecture should attend this course.

## PREREQUISITES

To complete this course successfully, you must be able to perform basic Microsoft Windows tasks.

## 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 the students' learning experiences, the following materials are provided as part of the course package:

- Student Manual
  - Includes the key concepts, definitions, examples, and activities presented in this course
- Lab Book
  - Provides learning activities and hands-on practice. Solutions are included after each exercise for immediate feedback.

## HANDS-ON PRACTICE

Hands-on practice is necessary for retaining new information and learning new skills. Once you are familiar with the basic integrated system components, you will create a working program with the Studio 5000 Logix Designer® application. You will also have an opportunity to practice integrating this program across NetLinx-enabled networks with motors, drives, and visualization products on an Integrated Architecture system workstation (Catalog Number ABT-TDIA-A).

## NEXT LEARNING LEVEL

Once you have an understanding of the topics and skills covered in this course, you may want to attend specific training such as:

- *Studio 5000 Logix Designer Level 1: ControlLogix System Fundamentals* (Course Number CCP146)
- *Motion Control Fundamentals* (Course Number CCN130)
- *AC/DC Motors and Drives Fundamentals* (Course Number CCA101)
- *DeviceNet and RSNetWorx Configuration and Troubleshooting* (Course Number CCP164)
- *ControlNet and RSNetWorx Configuration and Troubleshooting* (Course Number CCP173)
- *EtherNet/IP Fundamentals and Troubleshooting* (Course Number CCP180).
- *RSView32 Project Development* (Course Number CCV201)
- *FactoryTalk View Machine Edition and PanelView Plus Programming* (Course Number CCV204)

## COURSE LENGTH





This is a two-day course.

### 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>

To be respectful of the environment, Rockwell Automation is transitioning some of its training courses to a paperless format. Students are asked to complete downloads and bring personal devices to these classes. A full list of digital/paperless courses is currently available through your local distributor.

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