



Curriculum Description

PAC Programming (Basic) Training

Tuition Fee

\$2,750 per student

Offered at a no cost for Channel Partners. Please contact drivestraining@us.abb.com to receive a coupon code.

Description

This program is designed to introduce students to Automation Builder, the basics of programming in Automation Builder with a focus on Function Blocks, and the logical thinking required to be successful.

Goals

To introduce students to the Automation Builder environment and to gain a basic knowledge on how to program the AC500 for a wide range of applications. The student will also gain skills in logical thinking and problem solving.

Training Type and Duration

This program is 16 hours of Instructor Led Training, which is approximately 75% hands-on lab exercises.

Student Profile

It is intended for anyone interested in learning how to program a PAC. If you are interested in advancing your career, this program is where you will start.

Training locations and scheduling

This Live Remote/Classroom Training Program is offered by our training facility in New Berlin, WI. Please visit the Drives, PLC and Motion Training Schedule for a list of upcoming classes.

Prerequisites

Students should have basic computer skills and basic knowledge of electrical theory and application.

Learning Objectives

For successful completion of this program, students will:

- Know what a PAC is
- Identify where a PAC can be applied
- Understand what I/O is
- Create a Program in Automation Builder
- Configure a PAC to communicate to a PC
- Navigate through Automation Builder and create new programs from scratch
- Identify common industry acronyms including but not limited to:
 - POU's
 - FB, LD, ST, CTU, TON, TOF, AND, OR, etc.
- Customize and wire a new PAC to specification
- Gain basic understanding of Binary
- Configure a program based on specifications
- Understand basic Boolean arithmetic
- Acquire confidence in programming
- Create programs for a portfolio of examples for potential future employers
- Configure panel communication protocols in Drive Composer.

Student Materials

Prior to the start of this training program, each student will receive a student manual that includes all practice lab exercises.

Agenda

Day 1	Day 2
8:00 a.m. ~ 5:00 p.m. <ul style="list-style-type: none">• Training Welcome and Introduction• PAC Programming Introduction• AC500 IO Wiring• Introduction to Binary• Configuring Automation Builder - Lab• Variables and Naming Conventions• Programming Rules• Boolean Arithmetic• First Steps in Programming - Lab	8:00 a.m. ~ 5:00 p.m. <ul style="list-style-type: none">• Additional Function Blocks• Basic Programming – Labs• Configuring Automation Builder without a Demo – Lab• Wrap-up

Note: Students will have access to ABB provided Laptops with software and tools used in the training at no additional cost. Students who wish to use their own PC's for training are required to purchase, install, and test the current software versions prior to attending a classroom training event. ABB will not troubleshoot student owned PC's.

