

## SNAP PAC Learning Center

### Features

- > Complete package of fully functional Opto 22 hardware and software
- > Full, step-by-step assembly and configuration instructions
- > Nine-lesson, self-guided tutorial
- > FREE technical support and Pre-sales engineering

### DESCRIPTION

**NOTE:** Due to the unavailability of essential parts, the SNAP-PACLC is obsolete as of April 2022. Learning Centers are available on our website for groov RIO edge I/O ([GRV-RIO-LC](#) and [GRV-RIO2-LC](#)) and the groov EPIC system ([GRV-EPIC-LC](#)).

The SNAP PAC Learning Center delivers a complete package for learning, demonstrating, and examining the capabilities of the powerful and versatile SNAP PAC system.

Not just a sample, the SNAP PAC Learning Center includes the field-proven, real hardware and software used by Opto 22 customers all over the world. Use the SNAP PAC Learning Center to explore Opto 22's industrial controllers, reliable I/O, and full-featured automation software. Configure the I/O, develop a control program (called a *strategy*) to run on the SNAP PAC controller, and create an HMI (human-machine interface) for your PC. And then use the same hardware and software in your own industrial control, remote monitoring, or data acquisition application.

Developed in part as a response to the success of our *Introduction to the SNAP PAC System* training program, the SNAP PAC Learning Center provides lessons applicable to any industrial or commercial application but tailored to this standalone system and its panel of input and output devices. With the learning center you get industrial automation software, controller and I/O, mounting rack, sample instruments, and self-guided training.

### SNAP PAC LEARNING CENTER GUIDE

The content of our popular instructor-based training is now available in a self-paced, nine-lesson tutorial, which is included with the SNAP PAC Learning Center. Step-by-step instructions guide you in assembling your hardware, configuring your I/O unit and points, programming the SNAP PAC controller, and building a human-machine interface. Instruction is split into nine easily managed lessons. Each lesson targets a certain aspect of the system, such as configuration, flowcharts, scripting, analog points, and so on, and each lesson provides easy-to-find concept sections to review and apply what you have learned.



The course uses a learning scenario of a fictional convenience store, with digital input and output devices (lights and door contacts), and analog inputs and outputs (fuel sensors and displays).

### LEARNING CENTER SOFTWARE

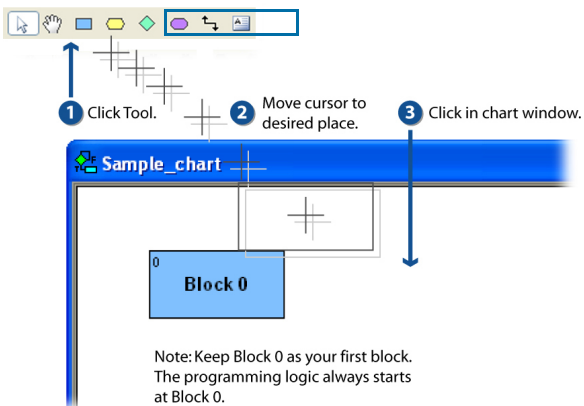
The SNAP PAC Learning Center includes the PAC Project Basic software suite. Use this software with your system as part of the Learning Center or deployed in your application:

- **PAC Control Basic**—a graphical, flowchart-based programming tool for machine control and process applications. Includes subroutines plus a powerful scripting language for easy math, string handling, and control loops.
- **PAC Display Basic**—an intuitive HMI package for building operator interfaces for your Microsoft® Windows®-based clients communicating with PAC Project controllers. PAC Display includes advanced alarming, trending, and security as well as a built-in library of 3,000 industrial automation graphics.
- **PAC Manager**—a configuration and maintenance utility provided with the SNAP PAC System.

### Part Numbers

Part	Description
SNAP-PACLC	SNAP PAC Learning Center, <i>SNAP PAC Learning Center Guide</i> (printed), and PAC Project 9.x software with PAC Project documentation in PDF format.

## Placing Blocks:



Excerpt from the *SNAP PAC Learning Center Guide*—Numerous illustrations demonstrate procedures and describe concepts, so any computer user can succeed in this independent, self-guided course.

## LEARNING CENTER HARDWARE

### SNAP-PAC-R1

The SNAP-PAC-R1 programmable automation controller provides control, communication, and I/O processing in a compact, rack-mounted package. The SNAP-PAC-R1 runs the control strategy you build; interfaces with analog, digital, and serial modules; and communicates with the HMI and other networked computers. It has two, independent Ethernet network interfaces for network segmenting or Ethernet link redundancy.

Because this intelligent, flexible PAC can be used in several ways, it continues to be useful as your system grows and changes. The SNAP-PAC-R1 can provide complete cell control on its own rack with I/O modules, as it is used in the Learning Center. It can also control other SNAP PAC I/O units at the same time, as part of a larger system. Or the R1 can be used in a more extensive distributed control system as an I/O unit controlled by a SNAP PAC S-series standalone controller.

### SNAP-PAC-RCK8 Mounting Rack

The SNAP-PAC-RCK8 rack mounts the controller and up to a total of eight SNAP digital, analog, and serial modules.

### SNAP I/O Modules

- SNAP-IDC5D: Digital DC Input, 2.5–28 VDC, 5 VDC Logic
- SNAP-ODC5SRC: Digital DC Output, 5–60 VDC Source, 5 VDC Logic
- SNAP-AOV-27: Analog Output, Dual, -10 to +10 VDC
- SNAP-AICTD: Analog Input, Dual, ICTD Temperature
- SNAP-AIV: Analog Input, Dual,  $\pm 10$  or  $\pm 5$  VDC (configurable)

### Learning Center Load Panel

- Two toggle switches, two momentary switches, one SonAlert buzzer, three LEDs, one DC panel meter, one potentiometer, one temperature sensor

### Accessories

- Power cable. Input voltage range for the Learning Center is 120–300 VAC. The appropriate power cable is included, based on your location (U.S., international, or UK); if you need to specify a different cable, please call Opto 22 at 800-321-6786 (toll-free in the U.S. and Canada) or 951-695-3000.
- Ethernet category 5 crossover cable

## COMPUTER REQUIREMENTS

To use the SNAP PAC Learning Center with your PC, you must have the following minimum computer configuration:

- A computer with a standard or mainstream processor and (at least) the minimum memory required for your version of Microsoft Windows. (Low-end CPUs are not recommended.) Additional memory may be required for some configurations.
- One of the following operating systems:
  - Microsoft® Windows® 10 Professional (32-bit or 64-bit)
  - (OptoOPCServer and OptoDataLink only) Windows Server® 2012 R2 and Windows Server 2008 R2

*NOTE: PAC Project cannot be installed on Windows XP or older Windows operating systems. Embedded operating systems are not tested or supported.*

- Ethernet capability
- VGA or higher resolution monitor. Minimum size: 800x600 with small fonts
- Mouse or other pointing device
- (Optional) Installed Windows printer
- At least 187 MB of available hard drive space

## LEARNING CENTER PRODUCT SUPPORT

Opto 22's product support services are available to assist you with any problems relating to your work with the Learning Center. Call **(800) 832-6786** (toll-free in the U.S. and Canada) or **(951) 695-3080**, or email [support@opto22.com](mailto:support@opto22.com).