This product is obsolete.

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NOTE: *Due to the unavailability of essential parts, the SNAP-PACLC is obsolete as of April 2022.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website for groov RIO edge I/O (GRV-RIO-LC and GRV-RIO2-LC) and the groov EPIC system (GRV-EPIC-LC2; the GRV-EPIC-LC is obsolete).*

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. 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 this 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 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 **[Obsolete]**	**[Obsolete]** SNAP PAC Learning Center, *SNAP PAC Learning Center Guide* (printed), and PAC Project 9.x software with PAC Project documentation in PDF format.

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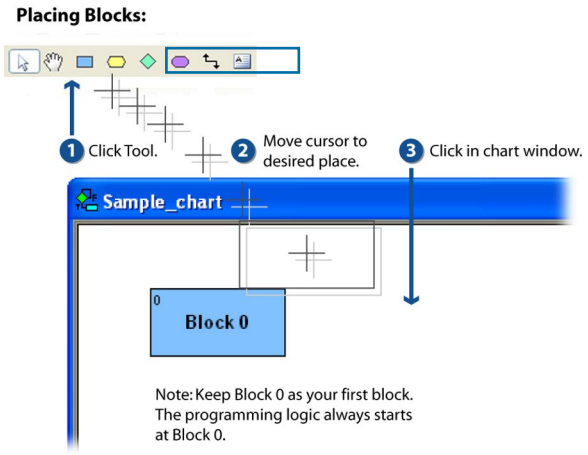

Excerpt from the *SNAP PAC Learning Center Guide*—Numerous illustrations demonstrate procedures and describe concepts, so any computer user can succeed in this independent, self-guided course.

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, ±10 or ±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

SYSTEM REQUIREMENTS

To use the SNAP PAC Learning Center with your PC:

- Computer operating system:
  - Recommended: Microsoft Windows® 11 (Professional or Enterprise)
  - Minimum: Microsoft Windows® 10 (Professional or Enterprise)
  - Microsoft .NET Framework 4.8 or higher must be installed
  - (OptoOPCServer and OptoDataLink) Windows Server® 2025, 2022, 2019, and 2016

  NOTE: *Ensure you use the latest 64-bit version of the operating system and keep it up to date. PAC Project cannot be installed on Windows XP or older Windows operating systems. Other versions of Windows operating systems and embedded Windows operating systems are not supported.*

- Processor (CPU):
  - Recommended: Intel® Core™ i7 / AMD® Ryzen™ 7 at 3.0 GHz or higher
  - Minimum: Intel® Core™ i5 / AMD® Ryzen™ 5 at 2.0 GHz or higher
- Memory (RAM):
  - Recommended: at least 16 GB (or more if paging occurs)
  - Minimum: 16 GB
- Storage:
  - Recommended: 20 GB or more of free disk space and Solid State Drive (SSD) for significantly faster file read/writes
  - Minimum: at least 10 GB of free disk space and 7200 RPM (or faster) Hard Disk Drive (HDD)
- Display monitor:
  - Recommended size: 1280 × 720 or higher
  - Minimum size: 800 x 600 with small fonts

This product is obsolete

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- Networking capability
- Mouse or other pointing device
- (Optional) Installed Windows printer

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.

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