



ioProject™ and SNAP PAC

Fully integrated hardware and software for industrial control, remote monitoring, and data acquisition



Features

- Save money with the highest performance, lowest cost programmable automation controller on the market today.
- Save time with a completely integrated software suite for control program and HMI development.
- Get full product-line compatibility: connect to the broad line of SNAP Ethernet I/O™—and legacy Opto 22 I/O systems, too.
- Receive FREE product support and FREE training.

ioProject Software Suite

ioProject software gives you everything you need to complete your automation project quickly. Graphical interfaces are easy to use. I/O point names, variables, and commands are in plain English. A single tagname database is shared by all applications in the suite, so the tags you build for control are immediately available for human-machine interface (HMI) and OPC use.

ioProject Basic gives you all the software you need for most automation projects. ioProject Basic is included with your purchase of either an R-series or S-series SNAP PAC programmable automation controller. The suite includes:

- *ioControl™ Basic*—Flowchart-based programming tool for control applications, with OptoScript™ programming and subroutines
- *ioDisplay™ Basic*—HMI package for building operator interfaces for ioProject control systems, with alarming, trending, security, and more
- *ioManager™*—Tool for assigning IP addresses and configuring I/O units

ioProject Professional adds more features and is available for separate purchase. It includes everything in ioProject Basic, plus the following:

- *OptoOPCServer™*—a fast, efficient OPC 2.0-compliant server to handle communications between multiple OPC clients and Opto 22 devices
- Options for Ethernet link redundancy or segmented networking
- Support for legacy Opto 22 *mistic®* I/O systems, and migration tools for Opto 22 *FactoryFloor®*

SNAP PAC Programmable Automation Controllers

Segment your control system from the company network with the first PAC of its kind to include two independent Ethernet network interfaces. The two interfaces are on both R-series rack-mounted PACs and S-series standalone PACs, and can also be used to provide Ethernet link redundancy in case of link or network component failure.

SNAP PAC controllers and ioProject software form a complete, integrated control system that includes digital and analog control, serial string handling, PID loop control, and enterprise connectivity.

R-series controllers provide control, communication, and I/O processing in a compact, rack-mounted package. Use the R-series for cell control, for controlling other I/O units, or in a more extensive distributed control system as an I/O unit controlled by an S-series controller.

S-series controllers offer industrially hardened, standalone control power for larger projects or for multiple protocols, multiple networks, or connecting to legacy Opto 22 control systems.

ioProject Basic and ioProject Professional: A Comparison

ioProject Features	Basic	Pro
Control software		
Flowchart and OptoScript programming	✓	✓
Subroutines	✓	✓
Graphical debugger	✓	✓
Additional I/O functions		✓
Import OptoControl strategies		✓
Support for <i>mistic</i> I/O bricks*		✓
HMI software		
Alarming	✓	✓
Realtime and historical trending	✓	✓
Operator access control and logging	✓	✓
Data encryption	✓	✓
3000-graphic library	✓	✓
Communicate with legacy controllers via Ethernet	✓	✓
Import OptoDisplay projects		✓
Third-party integration		
Modbus®	✓	✓
Allen-Bradley® DF1	✓	✓
Serial devices	✓	✓
OPC Server		✓
Maintenance and diagnostics		
ioManager	✓	✓
ioUtilities	✓	✓
Support for Ethernet link redundancy		
Primary and secondary IP addressing		✓
Primary and secondary data scanners		✓

*Requires SNAP PAC S-series controller

SNAP PAC R-Series and S-Series Controller Features

SNAP PAC Controller Features	R-Series	S-Series
Mounting	On the rack	Standalone
Number of ioControl flowcharts running simultaneously	up to 16	up to 32
Ethernet interfaces	2	2
Serial ports	1 RS-232	2 RS-232 1 RS-485
Memory (megabytes)		
Total RAM	16	32
Battery-backed RAM	2	8
Flash	8	16
Host communications		
Ethernet (10/100 Mbps)	✓	✓
Serial using PPP and optional modem or radio	✓	✓
I/O communications		
Ethernet (10/100 Mbps)	✓	✓
Serial (RS-485)*		✓
On-board	✓	
I/O unit compatibility		
SNAP Ethernet I/O	✓	✓
Ethernet Optomux®	✓	✓
<i>mistic</i> bricks*		✓
Third-party device communications		
Ethernet	✓	✓
Serial	✓	✓
Other features		
FTP server/client, file system	✓	✓
Scratch Pad area	✓	✓
Realtime clock	✓	✓

*Requires ioProject Professional

About Opto 22

Opto 22 develops and manufactures hardware and software products for applications in industrial automation, remote monitoring, and data acquisition. Using standard, commercially available Internet, networking, and computer technologies, Opto 22's input/output and control systems allow customers to monitor, control, and acquire data from all of the mechanical, electrical, and electronic assets that are key to their business operations. Opto 22's products and services support automation end users, OEMs, and information technology and operations personnel.

Founded in 1974 and with over 85 million Opto 22-connected devices deployed worldwide, the company has an established reputation for innovation, quality, and reliability.

Opto 22 products are sold through a worldwide network of distributors, partners, and system integrators. For more information, contact Opto 22 headquarters at 800-321-OPTO or visit the website at www.opto22.com.