



## Martindale Associates 4 Day Opto 22 Certified Training Classes

### Call (978) 372-2120 for Dates or to set up Private Sessions

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The **four-day, hands-on classes** introduce **PAC Project** automation software, **SNAP PAC** programmable automation controllers, and **SNAP I/O**, including system components and configuration, networking capabilities, diagnostics, troubleshooting, and communication methods, including TCP & UDP, IP, SMTP, SNMP, FTP, and OPC.

Price: \$600 per person Lunch is Included. Class time: 8:30 - 5:00 Space is Limited to Six (6) People

#### Training includes:

Hands-on Instruction for PAC Project automation software, SNAP PAC controllers, and SNAP I/O

**Prerequisites:** Students must have a working knowledge of Microsoft Windows XP or Windows 2000, but no prior Opto 22 knowledge is required.

The SNAP PAC System training class provides an overview of Opto 22 **SNAP PAC** programmable automation controllers and brains, **SNAP I/O modules**, and **PAC Project** Basic and Professional software, as well as the many methods of communicating with the system.

Students learn to configure I/O, program control strategies, and develop HMI screens. Using **PAC Control**, students develop their own control and data acquisition programs with easy-to-use flowcharts and **OptoScript**, a powerful scripting language for executing math, string handling, control loops, and other complex functions. Using **PAC Display**, students design their own customized operator interfaces for communicating with the SNAP PAC System and also perform real-time and historical trending and alarming.

#### Course Content:

- SNAP PAC System hardware overview
- Networking overview
- IP addressing
- PAC Manager-assigning IP addresses, downloading firmware, configuring optional functions
- PAC Control-control engine configuration and I/O configuration, flowcharting, digital and analog control, tables, string handling, serial communication, OptoScripting, SNMP traps, event messages, file and FTP capabilities, PID loops
- PAC Display-building an operator interface, animation, trending, alarming
- OptoOPCServer-configuration, connecting to test client
- OptoDataLink-configuring data sources and destinations
- OptoTerminals-hardware configuration, developing an interface using Qlarity Foundry software
- Troubleshooting

#### Hotel Arrangements

There are 2 hotels within 2 miles of Martindale Associates office. They are listed below. Martindale has worked out a corporate rate of \$76.00 per night with Comfort Suites. This includes a Continental Breakfast. Their website is <http://www.comfortsuites.com/hotel/MA063>.

The other hotel is the Best Western and their website is <http://www.bestwesternmassachusetts.com/haverhill-hotels/>.

#### Contact Training at Martindale Associates to register:

Phone: 978-372-2120

Toll-Free (in the U.S.): 1-800-447-1191

Email: [training@martindaleassoc.com](mailto:training@martindaleassoc.com)