

# CUSTOMER COURSE CATALOG

## **Contact Us**

Automated Logic Training Department Telephone: 770-795-5188 E-mail: training@carrier.com

Please contact your local Automated Logic dealer for course pricing and schedules.



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# **ABOUT US**

Thank you for your interest in Automated Logic training courses, which include hands-on labs to build proficiency with our **WebCTRL® building automation system** and associated products.

# LOCATIONS

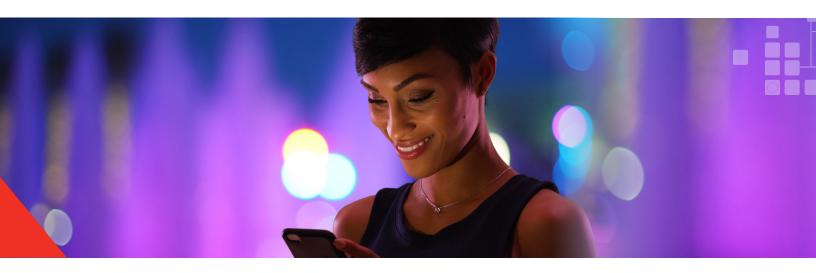
The Automated Logic World Headquarters (WHQ) Training Center is located north of Atlanta, GA. All inperson courses include a tour of the Automated Logic Factory to see where our products are made, as well as the opportunity to meet Automated Logic WHQ staff.

Automated Logic also has **factory-certified training centers around the world**. These **Partners in Training** locations make it easy for you to get trained, no matter where you are.

FACTORY CERTIFIED LOCATIONS	INSTRUCTOR(S)		
North America			
Atlanta (WHQ)	James Ennis/Chris Dolinger Darryl Trombley/Kirk Strobel		
Harrisburg	Jeff Majetic		
Houston	John Diaz de Leon		
Las Vegas	Arielle Barnes		
Los Angeles	Arielle Barnes		
New England	Aaron Chesnes		
New York / New Jersey	Glenn Tarulli		
Pittsburgh	Jeff Majetic		
Sacramento	Derick Hopkins		
San Diego	Arielle Barnes		
San Francisco	Derick Hopkins		
Toronto	Jeffrey Streutker		
International			
Europe	Markus Gebele		
Europe (France)	Sylvain Marchand		
Europe (Germany, Benelux, Austria, Poland, Nordics & Baltics)	Marcel Maijers		
Europe (Netherlands)	Sander Schreurs		
Europe (United Kingdom & Ireland)	Clive Caplin		
Europe (Central)	Olaf Swarttouw		
Latin America	David Ramos		
Middle East	Najam Iqbal		
South Asia	Kevin Tsai		



Automated Logic is an accredited provider of the International Association for Continuing Education and Training (IACET). IACET Continuing Education Credits (CEUs) are available for select courses at select locations.



# **TRAINING FORMATS**

### Format

Classroom

### Traditional Classroom

A live instructor will lead up to 12 students (course dependent) in handson exercises with minimal lecture in between. Using the situated learning techniques of the <u>Kirkpatrick Model</u>, this methodology fosters a collaborative learning environment where students are positioned to maximize knowledge retention.

### Format

On-Site

### **Classroom On-Site**

This option brings our traditional classroom to your location of choice. Pricing and availability vary by course.

### Format eLearn

### Instructor-Led eLearning

A live instructor will lead students using video conferencing and remote access software. The student will have remote access to a training station to complete hands-on tasks, giving them a virtual classroom experience from many miles away. These courses are hosted in the same time and manner as the traditional classroom format.

### Format Virtual

### **Video-Led Virtual**

The video-led virtual training allows the student to take up to 9 business days to complete the equivalent of a 1-3 day, instructor-led course. Using video tutorials as the instructor, students will execute the workbook tasks and upload assignments using the Automated Logic Training Portal, asking questions through the discussion board where a dedicated instructor will facilitate. This format also offers "instructor hours" where students have live contact with a certified instructor and other registered students.

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### Format

### Self-Paced Video Tutorials

Self-Paced

Our self-paced video tutorials allow the student to watch and re-watch videos at their own pace. This is a good option for those who would like a refresher on what they've learned elsewhere, or as a prerequisite to another course. Not recommended as the only means of learning something new. Certification exams are available after viewing the video(s).

The self-paced video tutorials are available in our Training Portal and are available 24/7/365.

### Format LNL

### Lunch and Learn Events

These in-person or online one-hour events are designed to provide industry thought leadership to consulting/ specifying engineers and offer IACET CEU credits.



### **ALC Workshops**

These in-person or online events are short, 2-3 hour sessions that focus on one main topic for customers and ALC dealer/ branch personnel. The informal format encourages discussions among students.



# **CUSTOMER CERTIFICATION TRACKS**

### WebCTRL® Owner/Operator

The Owner/Operator certification track is for those who would like to learn how to use the capabilities and features of the WebCTRL® system to effectively manage and maintain their facility, regardless of industry type or size.

All courses in this track are available a la carte (note, some do require prerequisites), but the most balanced, comprehensive training will come by following the certification path shown.

### WebCTRL Owner/Operator: 1 Certification Track

This track is for owners/operators who are new to the WebCTRL system. Students will connect to a live WebCTRL system to learn how to manage their building.

Once certified, students will understand schedules, trends, alarms, and other fundamental WebCTRL features.

### Requirements

WebCTRL Owner/Operator: I Course



### WebCTRL Owner/Operator: 2 Certification Track

This track is designed for owners/operators who would like to learn more about WebCTRL's advanced features, including advanced reporting, advanced security, alarm actions, and WebCTRL add-ons.

Once certified, students will be able to diagnose and troubleshoot their WebCTRL system using WebCTRL alarms, trends, reports, and live logic pages.

### WebCTRL Owner/Operator: 3 Certification Track

This track is designed for owners/operators who would like to enhance their skills with the entire WebCTRL application suite, including the EIKON<sup>®</sup> graphical programming tool, SiteBuilder, and ViewBuilder.

Once certified, students will be able to create custom control programs and graphics, and also build/manage their WebCTRL system in SiteBuilder. Networking standards, as well as how to troubleshoot advanced networking issues on their WebCTRL system, are also included.

### Requirements

- WebCTRL Owner/Operator: I Certificate
- Networking: I Course
  - WebCTRL Owner/Operator: II Course

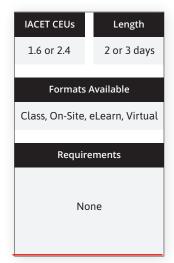
### Requirements

- WebCTRL Owner/Operator: II Certificate
- EIKON: I Course
- ViewBuilder: I Course
- WebCTRL Owner/Operator: III Course

# A LA CARTE CUSTOMER COURSES — ESSENTIAL SERIES

### **EIKON: I**

Learn the basics of EIKON graphical programming. Students who successfully complete this course will be able to identify the different types of microblocks, read a sequence of operation and translate it to a control program, simulate the program to find errors, and define microblock properties. This course is offered with the same content in a 2-day or 3-day format to allow students more time for questions and discussion about their systems.



### **Networking: I**

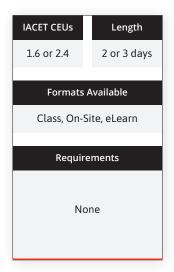
This course covers setup and troubleshooting techniques affiliated with basic Automated Logic networks. In addition, students will build source trees, define and identify the fundamentals of IP, ARC156, and MS/TP networks, and gain an understanding of how these concepts allow devices to communicate. Students will also learn the basics of Wireshark captures, clippings, and BACnet Discovery.

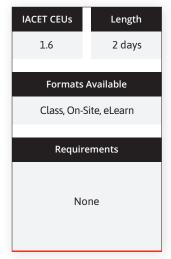
Upon successful completion of this course, students will be able to properly set up and troubleshoot basic Automated Logic networks, including gathering Wireshark captures of IP traffic at the server, as well as IP and ARC156 traffic at devices. This course is offered with the same content in a 2-day or 3-day format to allow students more time for questions and discussion about their systems.

### WebCTRL® Owner/Operator: I

This course is a great place to start your WebCTRL journey! If you have little or no experience with the Automated Logic WebCTRL system or you've never attended an Automated Logic training course, Owner/Operator: 1 is for you.

In this course, you will work with the WebCTRL user interface, create operators and privileges, develop schedules, troubleshoot with alarms and trends, and document using WebCTRL's reporting features. Higher-end topics are also included.

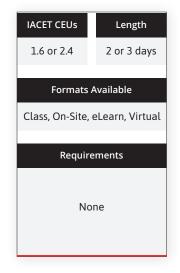




### ViewBuilder: I

This course introduces area and equipment graphics for the WebCTRL system. A complete ViewBuilder overview is provided, as well as its tools, controls, images, and available symbols. Custom topics include the use of conditional expressions and programming floorplans.

In this course, the student will successfully develop basic ViewBuilder graphics and will learn how to edit existing equipment and area graphics. This course is offered with the same content in a 2-day or 3-day format to allow students more time for questions and discussion about their systems.



# A LA CARTE CUSTOMER COURSES — ADVANCED SERIES

### **BACnet Integration: II**

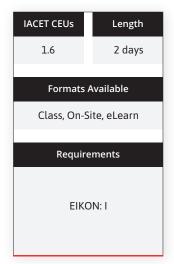
The BACnet protocol has become the standard protocol within the building automation industry. Students will learn the theory behind the BACnet protocol and how to seamlessly integrate third-party BACnet devices into a WebCTRL system. Students will utilize EIKON, Networking, and ViewBuilder skills to read and write BACnet objects while following a sequence of operation to incorporate them into a WebCTRL system without stressing the network.

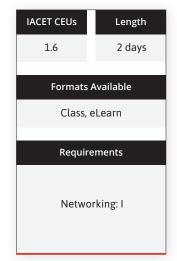
A successful integration is never complete without providing the programming, graphics, and network, so students will be equipped with tips and tricks to streamline integration to multiple pieces of equipment. They will also fine-tune their BACnet integration to achieve a healthy WebCTRL system, all with emphasis on efficiency.

### **EIKON: II**

Students will expand on knowledge from the EIKON: I course to learn how to create complex control programs and logic symbols. Students will also be able to identify programming as it is implemented within a complete system, and will utilize naming standards to create a library for quickly placing previously developed logic into new systems, thus making programming more efficient. Building a properties page, simulating a control program, and major customization to EquipmentBuilder programs are among several other intermediate EIKON features offered in this course.

# IACET CEUsLength0.81 dayFormats AuilableClass, eLearnRequirementsEIKON: 1ViewBuilder: 1Networking: 1





### **Networking: II**

This course is designed for individuals who wish to design complex network systems as well as troubleshoot networks with Wireshark. Students will set up complex Automated Logic networks, troubleshoot networks, and create a secure WebCTRL site. They will also focus on troubleshooting a WebCTRL system by reading and understanding a Wireshark capture. The dynamic BACnet binding process is also featured in this course.

### **Modbus Integration: II**

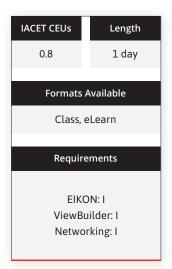
The Modbus protocol can be found in many industrial controls, from energy metering to variable frequency drives. In this course a student will learn the theory behind the Modbus protocol and how to integrate third-party Modbus devices into a WebCTRL system. Students will utilize EIKON, Networking, and ViewBuilder skills to read and write to/from Modbus registers while following a sequence of operation to incorporate them into a WebCTRL system without stressing the network.

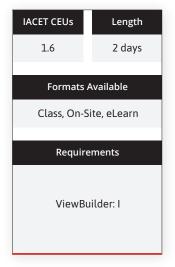
A successful integration is never complete without the programming, graphics, and network. The student will be equipped with tips and tricks to streamline integration to multiple pieces of equipment and fine-tune their Modbus integration to achieve a healthy WebCTRL system, all with emphasis on efficiency.

### ViewBuilder: II

Students will create equipment graphics from a schematic drawing and technician pages. As an example, students will be tasked to create one graphic for different types of similar equipment with the idea of creating a master graphic for all VAVs to shorten engineering time. In addition, students will create a standard template for their company.

Upon successful completion of this course, students will be able to identify, define, and/or apply advanced conditional expressions, WebCTRL paths for system/ equipment linking, and complete customization of equipment graphics, including HTML controls, external links, document links, email links, and custom images and symbols for WebCTRL graphics.





# A LA CARTE CUSTOMER COURSES — CAPSTONE SERIES

### WebCTRL® Owner/Operator: II

Designed for WebCTRL system owners/operators, this course covers many of the same skills and techniques taught in the Field Technician: I course, such as installing, basic commissioning, and troubleshooting a WebCTRL system. Upon successful completion of the course, students will be able to apply these skills, as well as edit a WebCTRL system utilizing EIKON, SiteBuilder, ViewBuilder, and WebCTRL.

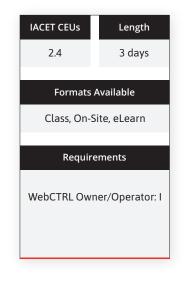
This course provides a complete day of real-life troubleshooting in a WebCTRL system. Owners/Operators should not be discouraged by not fully completing the troubleshooting day as all errors will be discussed by the end of the course.



### WebCTRL® Owner/Operator: III

This course covers more advanced features and scenarios associated with the WebCTRL system. Troubleshooting is a focus with an emphasis on deciphering logic pages and using add-on features to enhance the user's experience.

Upon successful completion of this course, the student will be able to configure and deploy complex features, such as advanced alarming and custom trending. They will also learn to set up location-dependent security privileges, as well as operators and privileges within groups.



# NOTES

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