

CAPacity

Newsletter for the ISA Certified Automation Professional® (CAP®)



Summer 2009

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CAP Profile of the Quarter: Arnold "Marty" Martin



"The greatest benefit of becoming an ISA Certified Automation Professional® (CAP®) is the number of career opportunities it opened up for me," says Arnold "Marty" Martin, Professional Engineer (PE) and CAP. "Back when I was interviewing for jobs, recruiters recognized my CAP certification. It allowed me to have choices, which greatly boosted my morale and confidence," he adds.

Marty has worked with Air Liquide America, US Corporate Headquarters in Houston, Texas, on and off for the past nine years. He was promoted to Manager of Advanced Process and Control Systems six months ago.

Air Liquide is a leader in gases for industry, health, and the environment. The company produces air gases (oxygen, nitrogen, argon, rare gases) and many other gases including hydrogen.

Marty manages a small group of corporate automation professionals at Air Liquide. He has knowledge of detailed control system applications, and a working knowledge of networking, and understands multi-variable process control (MVPC). He is responsible for implementing and maintaining advanced process control applications across multiple DCS platforms.

AMGEN, Marty's previous employer, covered all expenses of his certification, even preparatory work. "Becoming certified was a good, challenging goal for me," said Marty. "I included

CAP certification in my personal development goals and committed to my supervisor that I would achieve the certification."

Now working in a position to hire professionals, Marty looks for the CAP and PE credentials when seeking potential employees. "ISA is putting effort into its certification programs and I believe it will become the norm in industry," he comments. "If someone is CAP certified, I know that person has documented his or her skills. That person will have a competitive advantage over other candidates not holding the certification," he adds.

Marty first learned about the CAP program from ISA print and e-mail advertising. He found the program to have value and made a firm decision to pursue the certification. He believes by earning his certification, he has increased his credibility with peers and supervisors; and, he is encouraging others in his work group to become certified. "I'm pro ISA. When ISA decides to pursue something, the organization thinks the process through. CAP is an excellent certification program. It has helped me to document my skills and has given me what I need to excel in my career," Marty comments.

"Back when I was interviewing for jobs, recruiters recognized my CAP certification. It allowed me to have choices, which greatly boosted my morale and confidence." -Martin

In response to industry requests, ISA established the CAP program in 2004 to recognize and document the specialized knowledge, education, and experience of automation professionals. CAPs are responsible for the direction, design, and

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CAP Update

By Vernon Trevathan, P.E., CAP

The rate of new applicants for the Certified Automation Professional® (CAP®) program is trending upward. Applications in 2008 were 50% higher than 2007, which had the most of any previous year. As of mid-March 2009, applications already received and expected before the end of the first quarter put 2009 on track to be more than 50% above 2008 numbers.

In a number of companies, management support has been so strong that 20 or more employees have applied from that one company. Clearly, automation management is finding that CAP has significant benefits in personnel development and personnel assessment.

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The On-line, Instructor Assisted CAP Review Course (EC00E) is seeing large registrations each time it is offered. It has replaced the three-day classroom CAP Review Course (EC00) as the most popular formal preparation

for the CAP exam. In addition, this online course is being used by groups within a single company when that company has a good number of applicants. The classroom course has the advantage of eliminating distractions, so that every student can go through all of the material, and the advantage of face-to-face discussions with the instructor. The online course has the advantage of giving the student more time to absorb the material plus no travel, no time off work, and being able to work at any time in any time zone. The student, however, must supply the discipline to do the work.

Neither course covers all the answers to the CAP exam since certifications like CAP are based on the knowledge one has from all the study and experience in his/her career so far; however, students taking the review courses have found them to be a tremendous help in recalling information they once knew. Prep courses are prime vehicles for teaching the basics about unfamiliar topics.

The online course uses an 830-page paper text which is supplied to each student. Available to each student on the Internet are 500 sample test questions organized into pre-test, post-test, and specific module tests with software that tracks results; hundreds of flashcards to help the students remember terminology; and several dozen discussion questions where the students can build on each other's answers. This course lasts for nine weeks and typically requires 2 to 4 hours work per week, though some students spend significantly more time further exploring that week's topics. An experienced instructor is available to answer questions about any part of the material and add additional explanation where more is needed. Questions can be asked in the group format where the other participants see the questions and answers, or privately to the instructor.

A new program currently under development is the CAP Needs Assessment. In this program, a CAP Subject Matter Expert visits a company, interviews each of the employees that management has identified for the program, and gives each one a needs assessment test that matches the Domain weighting of the CAP Exam. A report is then written to summarize the findings and to propose any training that appears to be needed to help the employee prepare for a CAP exam. Several companies have been asking for this as soon as it is available.

One of the CAP experts writing questions for the assessment exam, and who happens to be from the company with the largest number of CAPs, said that he sees the Needs Assessment being used in two ways:

- For managers familiar with CAP, it will define what additional training is needed for those they would like to become CAPs.
- For managers not familiar with CAP, the Needs Assessment will help them better understand the scope of CAP.

For more information about CAP certification, visit our website at www.isa.org/cap. If you have specific questions or would like to talk with an ISA Learning Consultant about CAP training or Needs Assessment for your group, contact Kristy Becker at (919) 990-9219 or kbecker@isa.org.

CAP Profile

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deployment of systems and equipment for manufacturing and control systems.

CAPs must renew their certification every three years. This is accomplished by earning Professional Development Points (PDPs) by working, training, and continually gaining knowledge in the field.

Marty took his certification exam at a testing site in Rhode Island. In preparation for the exam, he took a prep course taught by Vernon Trevathan. He also enrolled in the CAP online review course, which allowed him to study at his own pace. "If you understand the basics in industry, refresh your knowledge, and then figure out where to concentrate your study efforts, it is a passable exam," he explains, recommending his advice to anyone considering the exam.

Marty has worked in the air separation industry since 2000. He holds a Bachelor of Science degree in Chemical Engineering from the University of Maryland. He received his CAP certification in 2006 and plans to renew it in 2009.

Automation Federation Finalizes Automation Competency Model and Moves Forward with US Census Option

About a year ago a group of dedicated automation professionals cutting across all skill sets (technician, engineering, integration, sales & marketing, and product development) met with representatives from the US Department of Labor (DOL) to begin work on the Automation Competency Model. In April 2009, the group met once more to finalize this work and complete the eight-tier model which will be posted on the US DOL website. This is a first step towards having *Automation* recognized as a profession, a career path, and a field of choice rather than an "accident" waiting to happen. This is exciting for automation professionals everywhere because this is the first completed Competency Model that the US DOL has produced!

The Automation Competency Model is heavily based on the domains of the Certified Control System Technician® (CCST®) and Certified Automation Professional® (CAP®) certification programs. Plans are underway to update the Model as it appears on the US DOL website. A national web seminar will take place discussing the final Model and the importance it offers to building the next generation of automation professionals. The Model will be reviewed on a yearly basis by the Automation Federation and the US DOL to ensure that it stays current and relevant. As a CAP, you can help in this process. Contact Paul Goodson, Automation Federation managing director at pgoodson@automationfederation.org if you are interested in providing input into the skills required to be an automation professional.

Provided by Kim Miller Dunn, CAP, Director Sales Development & Support, Rosemount Analytical Emerson Process Management.

Welcome New CAPs

Congratulations to our newest group of Certified Automation Professionals!

Carlos Patino Jacobs Engineering Group	Hardik Thakore Suncor	Shahid Umer Pak Arab Refinery
James Hershey Powertech Solutions	Steven Lovett Flint Hills Resources	John Markle Proconex
Edward Miller Canadian Nexen Petroleum Yemen	David White Brown and Caldwell	Steven Ho Lloyds Register Celerity3
Hamed Fallatah YANPET	David Webb Dynege	Mehdi Madani General Electric
Carl Wadsworth APCO Inc	Garth Gathers Eli Lilly Co	Jason Marlowe DAK Americas LLC
Michael Overbeck	Dennis Barrow Emerson Process Management	Abdulgader Al Shaikh Saudi Aramco Mboil Refinery Co Ltd
Rajiv Shah Jacobs Technology	Narciso Santiago EMA Inc	Daniel Kiselica Aker Solutions

ISA Family Mourns the Loss of CAP "Father"

Vernon Trevathan,
PE, CAP, PMP
1941 – 2009



Vernon Trevathan was a longtime member of ISA, earning Life Fellow status in 2005. He was a great contributor to the ISA certification, publication, and education programs, especially over the last five years. He is the "father" of CAP and was in his 4th year as the Vice President of the ISA Professional Development Programs.

Vernon was all about ISA, whether it was certification or otherwise. He was always thinking of the automation industry, though certification was his passion during the five years that I worked with him. Over the last year, Vernon and I began to joke with each other when talking about ISA business, me joking with him that he joined ISA before I was born, and him joking with me that I claim to be "administrative, not technical". Of course, both of these things are true! His brainstorming with leaders in process control, as well as ISA volunteers and staff like me, did so much for ISA and automation professionals around the world.

Certification is everywhere...it touches our lives more than we realize, and Vernon pondered this often. Whether it is automation professional certification or tree trimmer certification, the world is a safer place due in part to certification (and licensure). To that, and to Vernon, I say "thank you, and thank goodness." The others quoted here say it better than I have. Vernon, you are already missed.

Kristy Becker, CMP
ISA Certification Administrator

"Vernon had the rare combination of deep technology knowledge and exceptional management vision. The core of my expertise in pH, control loop performance, and compressor control is based on the early work of Vernon. Vernon could make great ideas happen. The most productive benchmarking and process control improvement program in the chemical industry was conceived and directed by Vernon. I will miss Vernon's inspiration, leadership, and friendship"

Greg McMillan, CAP
Principal Consultant
Process Systems and Solutions Technology
Emerson Process Management

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Trevathan

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"In all my years at ISA and working with volunteers, I have never met a more dedicated, competent leader of the Society. The Society has certainly suffered a big loss and those of us who knew and worked with him will certainly miss him. "

Dale Lee,
Director – Convention, Education,
and Certification Services
ISA

"I knew Vernon for only a short time through our contacts from the CAP program, but I knew almost instantly he was a man of great wisdom, knowledge, integrity, and heart. I often thought, 'I want to be like him when I grow up.' "

Scott Sommer, PE, CAP
Automation Technology Manager
Jacobs Engineering Group

Two New Ways to Promote CAP

Some of you asked about hard hat stickers. ISA has promoted the Certified Control Systems Technician® (CCST®) program with stickers for some time, and now we have them for CAP as well. Show off your designation every time you don a hard hat or display it on your portfolio before the next big meeting. Another item that will help CAPs stand out in a crowd is a lapel pin. Either item may possibly help recruit new applicants into the program. Those who become a CAP in 2009 will receive a hard hat sticker and lapel pin with their CAP packet, as will those who are renewing their CAP certification.



Testing Window Deadline Approaching

The last electronic testing window for 2009 is 1 November–31 December. The deadline to postmark/submit an application is 15 September. Remind those you know that may be interested in CAP to prepare now. The online CAP application (www.isa.org/cap/apply) is user friendly and can be completed in less than 30 minutes.

Exams Offered with Review Course

ISA's three-day instructor-led review course, EC00, and the CAP certification exam will be offered in Houston during ISA Fall Training Institute (an Automation Week event) 5-7 October. If you take this course offering, ISA will waive your exam fee – saving you up to \$295. You'll have the added benefit of access to the ISA EXPO 2009 exhibition hall.

The exam will be given the day after the course, on 8 October. You must register for the course and postmark or submit your CAP application by 27 August 2009. Information about the CAP Review Course (EC00) can be found online at www.isa.org/training/ec00.

Had a Problem? Found a Solution?

What's been your latest challenge on the job? Tell other CAPs how you were challenged with a problem and found the right solution. Contact Crystal Strickland, Marketing Coordinator, at cstrickland@isa.org for a chance at telling your story!



Founded in 1945, the International Society of Automation (www.isa.org) is a leading, global, nonprofit organization that is setting the standard for automation by helping over 30,000 worldwide members and other professionals solve difficult technical problems, while enhancing their leadership and personal career capabilities. Based in Research Triangle Park, North Carolina, ISA develops standards; certifies industry professionals; provides education and training; publishes books and technical articles; and hosts the largest conference and exhibition for automation professionals in North America. ISA is the founding sponsor of The Automation Federation (www.automationfederation.org).

Certification

ISA certification provides an objective, third-party assessment and confirmation of a person's skills, and gives them the opportunity to stand out from the crowd and be recognized. ISA currently offers two certification programs: Certified Automation Professional® (CAP®) and Certified Control Systems Technician® (CCST®).