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ISA's Certified Automation Professional[®] (CAP[®]) Program Handbook

Setting the Standard for Automation[™]

ISA's Certified Automation Professional® (CAP®) Handbook

Introduction

Thank you for your interest in the ISA Certified Automation Professional (CAP) Program. Being a CAP instantly makes you more valuable to your employer and increases your potential for higher profile jobs. The CAP Program was developed by leaders in the industry, including ISA, so your qualifications will be recognized industry-wide.

This information guide provides you with everything you need to know about the CAP Program, including an overview of the program, requirements, examination dates, renewal information, and ISA Membership information.

Table of Contents

- CAP Program Overview & Definition..... 1
- CAP Program Requirements 1
- Renewal 2
- Examination 3
 - Body of Knowledge..... 3
 - Practice Test..... 5
 - Taking the Exam 6
 - Fees..... 7
 - Examination Application 8
- Due Process Procedures..... 9
- ISA Resource Materials 11
- The ISA Code of Ethics..... 11
- Frequently Asked Questions About the CAP Program..... 12
- Why Should You Join ISA? 16



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 three certification programs: Certified Automation Professional® (CAP®), Certified Control Systems Technician® (CCST®), and Certified Industrial Maintenance Mechanic® (CIMM®).

CAP[®] Program Overview

CAP Definition

An ISA Certified Automation Professional (CAP) has completed a four-year technical or technology degree and five years of experience working in automation. CAPs are responsible for the direction, definition, design, development/application, deployment, documentation, and support of systems, software, and equipment used in control systems, manufacturing information systems, systems integration, and operational consulting.

For applicants applying prior to 1 January 2007 who do not meet the four-year technical degree requirement, ten years of automation experience is required and two references must accompany your application that document that you have held a position of responsible charge in the automation field for at least two (2) years. Responsible charge relates to the span or degree of control an automation professional has to maintain while exercising independent control and direction of professional automation work, and to the level of decisions being made.

The written CAP examination is a measure of a candidate's general and basic skills and knowledge of the information needed for the CAP to perform his or her role effectively. Certification is granted in recognition of the applicant's documented education, training, and experience and based upon successful completion of the written CAP examination. By awarding the title of Certified Automation Professional, ISA is formally recognizing the professional who has provided evidence that he or she meets accepted professional standards.

CAP Program

ISA's CAP Program promotes the professional development of the CAP, providing recognition and documentation of the professional's knowledge, experience, and education in automation. The CAP program ensures high levels of skill and competency, and is regarded as an important contribution by both industry management and labor.

To be certified under the ISA program as a CAP, applicants must demonstrate that they are skilled professionals, knowledgeable in the design, development, documentation, and support of systems, software, and equipment used in control systems, manufacturing information systems, systems integration, and operational consulting.

As evidence of qualifying for certification, ISA will provide successful candidates with a certificate stating that the individual has met the certification criteria, and has passed the CAP examination, and will maintain a registry of CAPs who hold certificates.

CAP Program Requirements

The CAP examination is only one requirement for certification. The candidate must also meet minimum requirements comprised of work experience and education. The qualification requirements for the certification are described in detail below.

General criteria to qualify to take the CAP examination include a commitment to the ISA Code of Ethics (see page 11), a completed application with documentation included to support the education and experience requirements, and the application fee. Applicants must meet either the qualifications outlined in I or II below to be eligible to sit for the CAP exam.

The following are acceptable work experience and education requirements:

I. If you hold a 4 year technical degree

- Four-year academic degree from an accredited educational institution in a technical or technology field including engineering, chemistry, physics, math, etc.
- Related work experience.

Related experience means a minimum of five years of work in the automation field. One (1) year of work experience means 1,500 hours of active employment. A cumulative total of 7,500 hours of documented work experience is required during the five year period prior to your application date.

II. If you hold a 2 year degree or do not have a degree

- Related work experience.

Related experience means a minimum of ten (10) years of work in the automation field. One (1) year of work experience means 1,500 hours of active employment. A cumulative total of 15,000 hours of documented work experience is required during the ten (10) year period prior to your application date. A two year associate degree in automation or a related field from an accredited institution may be used to satisfy two years of the ten year work requirement.

- Evidence of responsible charge position

Two (2) work related references should be submitted that demonstrates that the applicant has had at least two (2) years experience in automation in a position of responsible charge. Each reference should be completed and signed by a former supervisor or someone who is in a position to attest to the applicant's responsibilities. At least one of the references must be signed by a current or former supervisor. See below for a definition of "responsible charge."

Work experience and educational periods may not overlap when compiling the total number of years required for this certification.

Verification of Employment

Applicants must submit completed Verification of Employment forms for all employers or provide equivalent documentation. All forms must be signed by the supervisor. An applicant with military experience in the related technologies defined for the CAP program must document this period by submitting a copy of his or her DD 214 form accompanied by a written description of this experience. An official college transcript is also required.

For employers that may be unavailable to provide first-hand verification, a two-party verification of the employment must be provided in the form of a statement signed by a co-worker from that period of employment and notarized by a notary public. A full explanation of why the employer is not verifying the period of employment must be provided. Full contact information, i.e., name, address and telephone number, must be provided for all responsible parties who act to confirm employment verification.

Self employed applicants should complete the Verification of Employment form to document the required work experience and include a notarized letter from at least three (3) current customers (customers during the eligibility period), including full contact information for customers.

Position of Responsible Charge

For applicants who do not meet the four-year technical degree requirement, two references must accompany your application that document that you have held a position of responsible charge in the automation field for at least two (2) years. One of the references must be from your direct supervisor. Responsible charge relates to the span or degree of control an automation professional has to maintain while exercising independent control and direction of professional automation work, and to the level of decisions being made. Responsible charge does not refer to management control or administrative functions such as accounting, labor relations, or marketing.

The span of control necessary to be considered in a position of responsible charge includes:

- Personally makes critical automation project decisions, or reviews and approves proposed decisions prior to implementation, including consideration of alternatives.
- Judges the quality of other technical specialists and the validity and applicability of their recommendations before such recommendations are incorporated in the work.

Renewal

CAPs will be required to renew their certification every three years. If you do not renew within 4 months after your expiration date, your certification is considered lapsed. In order to renew, documentation of work experience in automation during the time certified will be required, as well as documentation of continuing education. A total of 135 Professional Development Points (PDPs) are required to renew your certification. The PDPs can be earned as follows:

- Work experience in automation (30 PDPs each year). A minimum of 60 PDPs (2 years) must be obtained from work experience. A year is defined as 1,500 hours of active employment. You must have worked in the automation field for 3,000 total hours during the 3 year renewal period.
- A minimum of 45 hours of continuing education or professional development activity in an automation or job-related field. An hour is defined as a minimum of 50 minutes. Continuing education units (CEUs) from an authorized provider are acceptable. One CEU equals 10 PDPs.

Test or renewal applicants without required documentation will be notified to submit the necessary verification and select a later exam date if testing within six (6) months of the initial exam date. If the applicant does not respond within three (3) months, then the application is considered abandoned. Applicant will have to submit a new application and the fee again to apply.

RECORD RETENTION POLICY: All documentation received from CAP applicants who are not eligible for certification will be retained for one year after the application is received.

CAP Examination

ISA, a non-profit, technical society for automation professionals is dedicated to providing education and career development opportunities. Providing un-biased certification programs, like the Certified Automation Professional (CAP) program, is an important part of ISA's mission.

To ensure that the most stringent test development requirements were employed during the development of CAP, ISA contracted with CASTLE™ Worldwide, Inc., to develop the certification examination. CASTLE Worldwide is a full-service testing company providing licensure, certification, and specialty examinations, including practical and written simulation tests, for associations, state boards, government agencies, and corporations.

The development of a valid examination for the CAP certification process began with a clear and concise definition of the knowledge, skills, and abilities needed for competent job performance. Using interviews, surveys, observation, and group discussions, CASTLE worked with automation professionals to delineate critical job components. The knowledge and skill bases for the questions on the examination were derived from the actual practice of the automation professionals as outlined in the 2004 CAP Role Delineation Study. CASTLE followed the NOCA and ANSI standards for test development. The NOCA standards are published in:

- National Commission for Certifying Agencies. (2002). Standards for the Accreditation of Certification Programs. Washington, D.C.: National Organization for Competency Assurance
- The American National Standards Institute(ANSI) administers a program for the accreditation of personnel certification programs, using ISO/IEC Standard 17024

CAP Body of Knowledge:

Six major performance domains account for the examination's content. These six domains, as well as the task statements for each domain, are listed below.

Domain I: Feasibility Study — identify, scope, and justify the automation project

- Task 1: Define the preliminary scope through currently established work practices in order to meet the business need
- Task 2: Determine the degree of automation required through cost/benefit analysis in order to meet the business need.
- Task 3: Develop a preliminary automation strategy that matches the degree of automation required by considering an array of options and selecting the most reasonable option in order to prepare feasibility estimates.
- Task 4: Conduct technical studies for the preliminary automation strategy by gathering data and conducting an appropriate analysis relative to requirements in order to define development needs and risks.

Task 5: Perform a justification analysis by generating a feasibility cost estimate and using an accepted financial model to determine project viability.

Task 6: Create a conceptual summary document by reporting preliminary decisions and assumptions in order to facilitate "go"/"no go" decision making.

Domain II: Definition — identify customer requirements and complete high-level analysis of the best way to meet those requirements

- Task 1: Determine operational strategies through discussion with key stakeholders and using appropriate documentation in order to create and communicate design requirements.
- Task 2: Analyze alternative technical solutions by conducting detailed studies in order to define the final automation strategy.
- Task 3: Establish detailed requirements and data including network architecture, communication concepts, safety concepts, standards, vendor preferences, instrument and equipment data sheets, reporting and information needs, and security architecture through established practices in order to form the basis of the design.
- Task 4: Generate a project cost estimate by gathering cost information in order to determine continued project viability.
- Task 5: Summarize project requirements by creating a basis-of-design document and a user-requirements document in order to launch the design phase.

Domain III: System Design — prepare the complete conceptual design of the control and information systems including specifications of the hardware and software to be used in the system

- Task 1: Perform safety and/or hazard analysis, security analysis, and regulatory compliance assessments by identifying key issues and risks in order to comply with applicable standards, policies, and regulations.
- Task 2: Establish standards, templates, and guidelines as applied to the automation system using the information gathered in the definition stage and considering human-factor effects in order to satisfy customer design criteria and preferences.
- Task 3: Create detailed equipment specifications and instrument data sheets based on vendor selection criteria, characteristics and conditions of the physical environment, regulations, and performance requirements in order to purchase equipment and support system design and development.
- Task 4: Define the data structure layout and data flow model considering the volume and type of data involved in order to provide specifications for hardware selection and software development.

- Task 5: Select the physical communication media, network architecture, and protocols based on data requirements in order to complete system design and support system development.
- Task 6: Develop a functional description of the automation solution (e.g., control scheme, alarms, HMI, reports) using rules established in the definition stage in order to guide development and programming.
- Task 7: Design the test plan using chosen methodologies in order to execute appropriate testing relative to functional requirements.
- Task 8: Perform the detailed design for the project by converting the engineering and system design into purchase requisitions, drawings, panel designs, and installation details consistent with the specification and functional descriptions in order to provide detailed information for development and deployment.
- Task 9: Prepare comprehensive construction work packages by organizing the detailed design information and documents in order to release project for construction.

Domain IV: Development — software development and coding

- Task 1: Develop Human Machine Interface (HMI) in accordance with the design documents in order to meet the functional requirements.
- Task 2: Develop database and reporting functions in accordance with the design documents in order to meet the functional requirements.
- Task 3: Develop control configuration or programming in accordance with the design documents in order to meet the functional requirements.
- Task 4: Implement data transfer methodology that maximizes throughput and ensures data integrity using communication protocols and specifications in order to assure efficiency and reliability.
- Task 5: Implement security methodology in accordance with stakeholder requirements in order to mitigate loss and risk.
- Task 6: Review configuration and programming using defined practices in order to establish compliance with functional requirements.
- Task 7: Test the automation system using the test plan in order to determine compliance with functional requirements.
- Task 8: Assemble all required documentation and user manuals created during the development process in order to transfer essential knowledge to customers and end users.

Domain V: Deployment — field installation and checkout and startup of the systems

- Task 1: Perform receipt verification of all field devices by comparing vendor records against design specifications in order to ensure that devices are as specified.
- Task 2: Perform physical inspection of installed equipment against construction drawings in order to ensure installation in accordance with design drawings and specifications.
- Task 3: Install configuration and programs by loading them into the target devices in order to prepare for testing.
- Task 4: Solve unforeseen problems identified during installation using troubleshooting skills in order to correct deficiencies.
- Task 5: Test configuration and programming in accordance with the design documents by executing the test plan in order to verify that the system operates as specified.
- Task 6: Test communication systems and field devices in accordance with design specifications in order to ensure proper operation.
- Task 7: Test all safety elements and systems by executing test plans in order to ensure that safety functions operate as designed.
- Task 8: Test all security features by executing test plans in order to ensure that security functions operate as designed.
- Task 9: Provide initial training for facility personnel in system operation and maintenance through classroom and hands-on training in order to ensure proper use of the system.
- Task 10: Execute system-level tests in accordance with the test plan in order to ensure the entire system functions as designed.
- Task 11: Troubleshoot problems identified during testing using a structured methodology in order to correct system deficiencies.
- Task 12: Make necessary adjustments using applicable tools and techniques in order to demonstrate system performance and turn the automated system over to operations.

Domain VI: Operation and Maintenance — long-term support of the system

- Task 1: Verify system performance and records periodically using established procedures in order to ensure compliance with standards, regulations, and best practices.
- Task 2: Provide technical support for facility personnel by applying system expertise in order to maximize system availability.
- Task 3: Perform training needs analysis periodically for facility personnel using skill assessments in order to establish objectives for the training program.
- Task 4: Provide training for facility personnel by addressing identified objectives in order to ensure the skill level of personnel is adequate for the technology and products used in the system.
- Task 5: Monitor performance using software and hardware diagnostic tools in order to support early detection of potential problems.

- Task 6: Perform periodic inspections and tests in accordance with written standards and procedures in order to verify system or component performance against requirements.
- Task 7: Perform continuous improvement by working with facility personnel in order to increase capacity, reliability, and/or efficiency.
- Task 8: Document lessons learned by reviewing the project with all stakeholders in order to improve future projects.
- Task 9: Maintain licenses, updates, and service contracts for software and equipment by reviewing both internal and external options in order to meet expectations for capability and availability.
- Task 10: Determine the need for spare parts based on an assessment of installed base and probability of failure in order to maximize system availability and minimize cost.
- Task 11: Provide a system management plan by performing preventive maintenance, implementing backups, and designing recovery plans in order to avoid and recover from system failures.
- Task 12: Follow a process for authorization and implementation of changes in accordance with established standards or practices in order to safeguard system and documentation integrity.

Practice Test

ISA offers an optional paper-and-pencil practice test, built to the same specifications as the actual examination, to help candidates prepare for the CAP examination. Practice tests allow candidates to prepare for the CAP examination by familiarizing themselves with the examination format and question types. For a copy of the practice test, please purchase the *CAP Study Guide* available through ISA at (919) 549-8411 or www.isa.org/CAP.

Sample Questions

The following six questions were taken from the CAP examination question item bank and serve as examples of the question type and content found on the exam.

- The method by which the tasks and hazards associated with a machine or process are analyzed is known as:
 - Risk assessment.
 - Machine assessment.
 - Risk reduction.
 - Risk abatement.
- To test controller tuning or prototype new control strategies offline, the model should be a(n):
 - Tie-back (loopback) simulation.
 - Artificial neural network.
 - Dynamic process simulation.
 - Steady state process simulation.
- The temperature measurement with the **BEST** repeatability and resolution is the:
 - Thermocouple.
 - Resistance temperature detector (RTD).
 - Dial thermometer.
 - Capillary system.
- Which of the following is **NOT** a variable speed drive setup parameter?
 - Acceleration rate.
 - Motor winding type.
 - Output frequency.
 - Maximum speed.
- A complete test plan for system integration testing **MUST** include:
 - Comments for the application programmer.
 - Multiple test cases for each mode of operation.
 - At least five test cases for each test.
 - Expected results for each test case.
- Frequency of maintenance should be determined by:
 - Failure rates of components.
 - Availability of personnel and parts.
 - Management targets for efficiency and productivity.
 - Effectiveness of maintenance personnel.

Answer Key

QUESTION NUMBER	CORRECT ANSWER	EXAMINATION CONTENT OUTLINE
1	A	Domain 1, Task 4
2	C	Domain 2, Task 2
3	B	Domain 3, Task 3
4	B	Domain 4, Task 7
5	B	Domain 5, Task 5
6	A	Domain 6, Task 2

Examination Time Limits

Applications must be received by ISA at least six weeks prior to the desired test administration date. Applicants must take the examination within nine (9) months of submitting an application. Applicants who fail to do so must reapply and pay a \$125 reschedule fee.

Reasonable Accommodations

Reasonable accommodations will be made to provide applicants with disabilities a fair and equal opportunity to demonstrate their knowledge and skill in the essential functions being measured by the examination. Reasonable accommodations are decided upon based on the individual's specific request, disability, documentation submitted, and appropriateness of the request. Reasonable accommodations do not include steps that fundamentally alter the purpose or nature of the examination.

A disabled candidate is one who has a physical or mental impairment that substantially limits that person in one or more major life activities (e.g., walking, talking, hearing, performing manual tasks); has a record of such physical or mental impairment; or is regarded as having such a physical or mental impairment.

The candidate must submit documentation provided by an appropriate licensed professional on the professional's letterhead. The documentation must include a diagnosis of the disability and specific recommendations for accommodations. Requests must be received by ISA six (6) weeks in advance of the examination date.

Taking The Exam

The CAP Exam is given in English. Candidates will have four (4) hours to complete the examination. For the latest electronic testing information, visit www.isa.org/CAP or call (919) 549-8411 or e-mail CAP@isa.org.

The examination is **closed-book**. Candidates may not bring any materials into the testing room.

CAP Exams are given in English. Beginning in 2007 the CAP exam will be available in Spanish. More information on CAP in Spanish will be available at www.isa.org/CAP soon.

Paper and pencil exams are still offered for private companies in the U.S., and at some ISA special events. When completing an application, check the box on the application for private/special event testing or electronic testing. You should only mark a city/state on the application for private site/special event exams. If your application for electronic testing is approved, you will select your exam location after receiving your eligibility letter.

Once approved to take an exam, all candidates will be eligible for a 9 month time period. You must take your exam, reschedule and take your exam, or retest (if necessary), within the 9 months that you are eligible, or you will have to re-apply to the program.

Electronic Testing

The CAP exam is available in an electronic format through the Thomson Prometric testing network. For more information on testing center locations, visit www.prometric.com/ISA.

Testing Windows for ISA Certification Electronic Exams

Beginning January 1, 2007, ISA electronic certification exams will be available during three testing windows. Each exam testing window will have a deadline for applications to be considered for testing in that window. Eligible candidates will only be able to test during the testing windows.

The candidate eligibility window is nine (9) months. Once your application is approved, testing must be completed within two exam testing windows. Your first exam testing date must be scheduled during the first available window after your application is approved. All rescheduling and retesting must be completed within the two consecutive exam testing windows within your nine (9) month eligibility period.

You may reschedule your exam once, and the rescheduled date must be during your first exam testing window. If you must retest, you must allow 30 days between your initial exam date and your retest date. If you are not able to schedule a retest in the same window you took the initial exam, you can retest in the next available window. A total of two retests are allowed within your two eligible exam testing windows with each retest scheduled at least 30 days apart.

If you do not successfully complete the exam within the two exam testing windows within your nine (9) month eligibility period, you must reapply submitting another application and fee.

In order to schedule an exam, you will need to send your completed application by the specified application deadline for the exam testing window. The application deadlines and testing windows are as follows:

Exam Testing Window	Exam Application Postmark Deadline
Window 1: 1 March – 30 April 2007	Tuesday, 16 January 2007
Window 2: 1 July – 31 August 2007	Tuesday, 15 May 2007
Window 3: 1 November – 31 December 2007	Monday, 17 September 2007

As part of the transition to exam testing windows, all eligible CAP applications postmarked on or before 31 October 2006 will be able to schedule an exam in 2006 or during the first testing window in 2007, 1 March – 30 April. Eligible candidate applications received in 2006 after October 31, will be able to test in the first two exam testing windows in 2007. The grid below will help define testing availability:

Exam Application Postmark Date	Exam Availability
On or before 31 October 2006	Any available test center date through 31 December 2006 and Window 1: 1 March – 30 April 2007
1 November – 31 December 2006	Any available test center date through 31 December 2006* Window 1: 1 March – 30 April 2007 and Window 2: 1 July – 31 August 2007
1 – 16 January 2007	Window 1: 1 March – 30 April 2007 and Window 2: 1 July – 31 August 2007
17 January – 15 May 2007	Window 2: 1 July – 31 August 2007 and Window 3: 1 November – 31 December 2007
16 May – 17 September 2007	Window 3: 1 November – 31 December 2007 and Window 1: 1 March – 30 April 2008
18 September 2007 – 15 January 2008	Window 1: 1 March – 30 April 2008 and Window 2: 1 July – 31 August 2008

*Please allow 6 weeks for application review and notification of eligibility.

Private Testing

If you are inside the U.S. and have four or more applicants to take any of ISA's certification exams, ISA will contact a local proctor to administer the exam in the paper and pencil format at your location at no additional charge. If you have less than four applicants to test, the site fee is \$250, which is in addition to each application fee.

Contact Alice Heaney at (919) 990-9401 or aheaney@isa.org regarding private exam sites in the United States. ISA no longer offers private exam sites outside the U.S. Applications for taking an exam at a private site must be received by ISA six (6) weeks prior to the desired exam date.

If the number of examinees for a private exam or a special event exam administration is below the minimum number pre-established for the session, ISA reserves the right to cancel the exam and notify the affected examinees as quickly as possible. ISA will work with the affected examinees to reschedule them to a new exam date/location, or electronic exam, within the nine (9) month eligibility period.

If the exam session must be cancelled because of a weather condition or insurmountable problems in regard to exam availability, test room availability, or proctor availability, ISA will contact the examinees as quickly as possible and arrange a replacement test date within the 9 month eligibility period. Although rare, the potential exists for a cancellation to occur as late as the actual day of the exam. There is no site fee if ISA cancels the exam date.

Examination Scoring

Electronic exam candidates will receive immediate results. Private exam site candidates' results will be mailed approximately 30 days after the examination date.

If an individual believes his or her examination results are wrong, he or she may appeal to CASTLE Worldwide, Inc. To initiate this process, the candidate must do so within 30 days of receiving his or her score report. CASTLE Worldwide, Inc., will hand-score the candidate's examination and mail the results to the candidate for a fee of \$40.

Letter and Certificate

Candidates who pass the examination will receive a letter confirming their new certification status and expiration date. In addition, passing candidates will receive a certificate suitable for framing.

Examination Fees

Currently, the application fee is \$250.00 for ISA Members and \$295.00 for non-members. This fee is subject to change. The fee must be paid in U.S. funds. ISA will accept a check, certified check, money order, or credit card. **Purchase orders are not accepted.** Payment must be received with the application before it will be processed.

Please make all checks payable to ISA. ISA issues receipts for payment of exam fees upon request only. Your canceled check is your proof of payment.

Fees are due in advance and ARE NOT REFUNDABLE. It is the responsibility of the applicant to thoroughly review the requirements for the examination and apply only if he or she is qualified. No refunds will be made for applicants who do not appear for testing on the appropriate test date.

Reschedules

Electronic exam candidates may reschedule only one time and the reschedule date you choose must be within the nine (9) month eligibility period. You must reschedule an exam more than 48 hours before the exam date for an exam in the United States or Canada, or more than 5 days for any other Prometric testing center. Candidates who do not appear for their scheduled exam and do not give proper advance notice of intent to reschedule their exam will incur a fee of \$125.

Private exam site candidates may reschedule their private exam with less than 45 days before the exam date due to a situation which prevents you from taking your exam as scheduled, for a fee of \$75.00. You may only reschedule one time, and the rescheduled private date you choose must be within nine (9) months of the initial exam date. There is no fee if you reschedule your exam prior to 45 days before the exam date. Please mail the reschedule form with payment to ISA.

Retests

Candidates who fail the examination must reapply to take the CAP examination. An applicant who wishes to retest must submit a Retest Form and take the test within their nine (9) month eligibility period to pay only the \$170.00 retest fee and avoid paying the entire application fee. An individual may only retest two times within the nine (9) month eligibility window. There is no limit to the number of times a candidate can take the examination. Candidates must allow 30 days between exams.

General

All fees are subject to change. If such a change occurs before the reprinting of this candidate handbook, a notice of the change will be inserted into the application. Be aware of the importance of any notices inserted.

Examination fees may be tax deductible on your individual federal income tax return if your certification is to maintain or improve your professional skills. Payments for examination fees are not deductible as charitable contributions.

CAP Examination Application

Candidates must complete all sections of the application. The application is available as a downloadable PDF file at www.isa.org/CAP or contact ISA at (919) 549-8411 or CAP@isa.org to request a copy.

Section A: Applicant Information

Provide complete contact information as requested. If ISA has a different mailing address on file for you, it will be changed to this preferred mailing address. All ISA-related materials will be mailed to this address unless you specify otherwise.

Indicate if you suffer from a disability or religious obligation that would require an accommodation for test administration. Provide a full explanation of the accommodation you request.

Section B: Job and Industry Classification

Indicate your primary job function and the industry in which you currently work.

Section C: Certification EXAM Selection Information

Mark the box for electronic testing or specify the date, city, and state where your organization has scheduled a private exam site. Only list city/state for private/special event exams.

Section D: Employment Summary

Complete a record of employment that fully covers the experience requirement to sit for the examination. Section D must be completed in addition to any other documentation submitted to verify employment.

Section E: Education/Training

Complete a record of education and training that fully covers the education requirement to sit for the examination. Official transcripts must be submitted as documentation to verify educational degrees. Certificates do not serve as verification of an apprenticeship or training. This experience must be verified by signed documentation.

Section F: Verification of Employment

Verification of Employment forms must be completed with job responsibilities and signed for all work experience claimed as qualification for examination. All documentation must be provided in English. Faxed verification is not accepted. The original signature must be provided on this form. You should also use this form to document the two references required to meet the responsible charge eligibility if you do not have a four year technical degree.

Section G: Verification of Employment in Position of Responsible Charge:

Verification of Employment in Position of Responsible Charge forms must be completed with responsible charge job details by your current and/or former supervisor(s) if you are documenting ten (10) years of automation experience as eligibility criteria to sit for the CAP exam. Two references should be submitted that documents that at least two (2) years of the ten (10) years experience must be in a position of responsible charge.

Section H: Compliance with Certification Criteria and Qualifications

Read carefully and sign the compliance agreement.

Section I: Fee

All applications must be accompanied by full payment of the required fees. No exceptions will be granted. Receipts are available upon request only.

Section J: Submitting Materials

Mail application and fee to ISA. Incomplete or incorrectly completed applications may be returned to an applicant. Once an application is submitted to ISA, the applicant must test within nine (9) months of the received date. It is the responsibility of the CAP applicant to promptly notify ISA in writing of any changes in his/her name or address. Notification for admission to the examination, test results, and renewal of certification depends on accurate information.

If mailing through regular postal delivery, send all materials to:

ISA
Certified Automation Professional Program
P.O. Box 3561
Durham, NC 27702

If mailing by overnight service, send all materials to:

ISA
Certified Automation Professional Program
67 Alexander Drive
Research Triangle Park, NC 27709

Materials sent to any other address will be returned. **Fax and e-mail applications are not accepted.**

Each applicant will receive a letter of confirmation or eligibility letter that the application and registration fee have been received. For private testing applicants, the confirmation letter also will include the time and location of the testing site.

Certification Status

Candidates taking the exam electronically will receive immediate results. Private exam site candidates will be notified by mail only of his or her certification status within 30 days after the examination date.

Examination Rules

CASTLE Worldwide, Inc. and ISA follow industry standard testing rules as outlined below.

- No books, papers, or other reference materials may be taken into the examination room. An area will be provided for storage of unapproved materials.
- No food or drink may be taken into the examination room.
- No electronic devices, including palmtops, laptops, notebooks, telephones, cameras, signaling devices, pagers, alarms, and recording/playback devices of any kind may be taken into the examination room. An area will be provided for storage of such materials.
- Candidates cannot take examination materials, documents, or memoranda of any type from the testing room.
- The examination will be given only on the date and time noted on the examination confirmation letter.
- No questions concerning the content of the examination may be asked during the examination period. The candidate should listen carefully to the directions given by the proctor and read the directions carefully in the electronic testing tutorial, or in the examination booklet for private exam sites.

Due Process Procedures

If an applicant feels he/she was wrongly denied certification, original or renewal, from the CAP program, then he/she has the right to appeal.

I. Appeals

A. All appeals shall be in writing.

1. The notice of appeal must be delivered to the Certification Board, addressed to the attention of the ISA Executive Director, by the close of business on the 21st day after the date of the notice of denied certification.
2. The appeal should include the date the notice of denied certification was received and must state the reasons the applicant believes the denied certification was in error.
3. The appeal should indicate whether or not the applicant requests a hearing.
 - a. If a hearing is requested, the applicant must explain why a hearing is needed, identify the issues to be resolved at a hearing, list names of prospective witnesses, and identify documentation and other evidence to be introduced at the hearing before the Board.
4. The Chair of the Certification Board will select a three-member panel of the Board to become the Review Panel, one of whom shall be appointed Chair and will be the final vote in the event of a tie during the ruling.

II. Procedures

A. The Review Panel will review the appeal and any request for a hearing. The Review Panel will grant a hearing in connection with the appeal, if requested.

1. Hearing

- a. The Chair of the Review Panel will determine the time and location of the hearing within 90 days after determination that a hearing is warranted and will notify the applicant within the first 21 days. The applicant will be notified of the hearing time and location at least 20 days prior to the time determined for the hearing.
- b. The applicant may be represented by counsel or represent him/herself at the hearing. The applicant may offer witnesses and documents and may cross-examine any witness.
- c. The Review Panel may consider any evidence it deems relevant without regard to strict application of legal rules of evidence.
- d. The applicant is urged to submit a written brief (four copies) 10 days prior to the hearing to the Certification Board, addressed to the attention of the ISA Executive Director, for distribution to the panel in support of his/her position. However, written briefs are not required.

2. Deposition

- a. If the applicant or Review Panel desires to take a deposition prior to the hearing of any voluntary witnesses who cannot attend the hearing, the deposition of a witness may be applied for in writing to the Chair of the Review Panel together with a written consent signed by the potential witness that he or she will give a deposition for one party and a statement to the effect that the witness cannot attend the hearing along with the reason for such unavailability.
 - b. The party seeking to take the deposition of a witness shall state in detail as to what the witness is expected to testify.
 - c. If the Chair of the Review Panel is satisfied that such deposition from a possible witness will be relevant to the issue in question before the Panel, then the Chair will authorize the taking of the deposition. The Chair will also designate a member of the Panel to be present at the deposition.
 - d. The deposition may be taken orally or by video. Any refusal of the taking of the deposition by the Chair shall be reviewed by the Panel at the request of the applicant.
 - e. The party requesting the deposition will pay for the cost connected with taking the deposition.
- B. The applicant will be notified of the result of the Review Panel within 30 days of the meeting.

III. Final Review

- A. If the Review Panel makes a decision adverse to the applicant, the applicant may appeal to the full Certification Board for a final review by the close of business on the 21st day after the notice of decision is issued. Such appeal shall follow the same procedures as the initial appeal to the extent possible with the Chair of the Board serving as the Chair of the Final Review Panel. The Chair will once again select a three-member panel, one of whom shall be himself, to become the Review Panel, and the final vote in the event of a tie during the ruling shall be his.
- B. If the applicant does not petition the Board for review or request a hearing before the Board regarding the recommendation of rejection of the application within the time allowed by these rules, the original decision by the Review Panel shall stand.

ISA Resource Materials

The CAP program covers a broad area of domains in the field of automation. ISA has reference publications and training services to assist those preparing for certification and interested in skill enhancement. A study guide is available and contains sample questions.

ISA also will offer training courses especially designed to assist those preparing for the CAP program. Contact ISA for more information or access www.isa.org/CAP. Users may link directly to certification information, publications catalog, or training catalog. The CAP Learning System, a combination of online and print review materials, will be available in early 2006. Please see www.isa.org/CAPLearn for more details.

The ISA Code of Ethics

Preamble

As engineers, scientists, educators, technicians, sales representatives, and executives in an important and learned profession; and in order to safeguard public welfare; and to establish and maintain a high standard of integrity and practice; and as members of ISA, we hold to these Articles:

Article I

Members shall hold paramount the safety, health and welfare of the public in the performance of their duties, and shall notify their employer or client and such other authority as may be appropriate where such obligations are abused. Members shall hold in confidence facts, data and information obtained in a professional capacity, unless the release thereof is authorized by their employer or client, and shall not engage in fraudulent or dishonest business or professional practices.

Article II

Members shall perform services only in areas in which they are qualified by education or experience, and shall endeavor to maintain their professional skills at the state of the art. Members shall practice their profession in a manner which will uphold public appreciation of the services they render.

Article III

Members shall issue public statements only in an objective and truthful manner, and shall include all pertinent and relevant information in professional reports, statements and testimony. Members shall be honest and realistic in making estimates or in stating claims based on available data. Members shall offer honest criticism of work, and shall properly credit the contributions of others.

Article IV

Members shall act in professional matters for each employer or client as faithful agents or trustees, and shall not participate in any business association, interest or circumstances which influence, or appear to influence, their judgment or the quality of their services. Members shall accept compensation, financial or otherwise, from only one party for services on or pertaining to the same work, unless otherwise agreed to by all parties; and shall not give or accept, directly or indirectly, any gift, payment or service of more than nominal value to or from those having business relationships with their employers or clients.

Article V

Members shall use only proper solicitation of employments, and shall represent their abilities, qualifications, education, technical associations and professional registrations without exaggeration and in accordance with the laws of the locations in which they practice.

Article VI

Members shall pledge themselves to live and work according to the laws of man and to the highest standards of professional conduct, using their knowledge and skills to the benefit of all mankind.

Frequently Asked Questions about the Certified Automation Professional® (CAP®) Program

Certification Programs

What certification programs are currently offered by ISA?

The Certified Automation Professional® (CAP®) program is one certification program offered by ISA. To receive documents pertaining to the CAP® program, visit www.isa.org/CAP or call ISA at (919) 549-8411.

ISA also supports the Control Systems Engineer (CSE) registration. The National Council of Examiners for Engineering and Surveying (NCEES) provides a listing of Licensure Boards in the U.S. For information on the CSE program, visit www.isa.org/cse or e-mail ISA at info@isa.org.

ISA also offers two additional certification programs: Certified Industrial Maintenance Mechanic® (CIMM®) and Certified Control Systems Technician® (CCST®). Visit www.isa.org/certify for all program details.

Will I automatically become an ISA Member if I apply to take the CAP exam?

No, the ISA membership fee is \$85 for one year, \$158 for two years, or \$225 for three years. Membership in ISA allows you to receive lower prices on ISA publications and training. Members also receive a free copy of *InTech* magazine monthly.

Electronic Testing

What is electronic testing?

Beginning in 2006, the CAP exam will be offered in an electronic format through the Prometric global network of testing centers. ISA will accept applications for electronic testing on 1 December 2005 for exam dates in 2006. Paper and pencil exams will still be offered for private companies in the U.S. Check the box on your application for electronic testing and review the details below as they apply to electronic testing vs. private exam sites.

When can I take the CAP exam?

Beginning 1 January 2007, CAP electronic exams will be available during three testing windows. Each exam testing window will have a deadline for applications to be considered for testing in that window. Eligible candidates will only be able to test during the testing windows.

Exam Testing Window	Exam Application Postmark Deadline
Window 1: 1 March – 30 April 2007	Tuesday, 16 January 2007
Window 2: 1 July – 31 August 2007	Tuesday, 15 May 2007
Window 3: 1 November – 31 December 2007	Monday, 17 September 2007

What if I miss the postmark deadline?

If you miss the postmark deadline you may send in your application; however, you will not be able to schedule your exam until the testing window associated with the next application deadline. See the exam testing windows above.

Fees

What are the fees?

Application Fees

The application fee is \$250 for ISA Members and \$295 for non-members. There are no group discounts for certification application fees.

Reschedule Fees with proper advance notification

Candidates may reschedule an exam appointment during their six month eligibility period if they contact Thomson Prometric at least 48 hours prior to the scheduled exam time for United States/Canadian test centers and at least 5 days prior to the scheduled exam time for Non-United States/Canadian test centers. No reschedule fee will apply.

<u>Region</u>	<u>Advance Notice Required</u>
United States/Canada	48 Hours Prior to Scheduled Exam Date
Non-United States/Canada	5 Days Prior to Scheduled Exam Date

Reschedule Fees without proper advance notification

Candidates who do not appear for their scheduled exam and do not give proper advance notice of intent to reschedule their exam will incur a fee of \$125.

Retest Fees

You may retest twice within your nine (9) month eligibility period for a fee of \$170 for each retest. If you are outside the 6 month eligibility period, full application fees will apply. Retest must be 30 days after last exam date.

What happens if I don't take the test on the day I'm scheduled?

For candidates who fail to appear for a scheduled exam, or arrive more than 15 minutes after the scheduled start time, fees will apply. See Reschedule fees without proper advance notification. You must reschedule your exam within your six month eligibility period.

What forms of payment does ISA accept for the application fee and/or private testing fees?

ISA will accept a check, certified check, or money order in U.S. Dollars, or credit card. Make checks payable to ISA. Purchase orders are not accepted. Payment must be received with the application before it will be processed.

Is the application fee refundable?

CAP fees are NOT refundable. It is the responsibility of the applicant to thoroughly review the requirements for an examination to determine if he/she is qualified. No refunds will be made for applicants who do not appear for testing on the appropriate test date. If, however, ISA cancels the exam date you registered for, and you cannot reschedule, a refund may be offered.

Application and Documentation

Does the application have to be typed?

The application may be typed or handwritten legibly in ink. Please do not use pencil.

Will I receive notice of my eligibility status?

Allow up to three weeks after submitting your application for notification of eligibility and eligibility code for electronic exam scheduling. You cannot schedule an electronic exam until your application has been approved and you have received your eligibility notice. For private site exam candidates, you will be contacted by ISA within two weeks of receipt of your application.

What documentation is necessary to meet the testing requirements?

As an applicant, you must provide documentation with original signatures that verifies all work experience and training, and official transcripts that document your educational experience. Certificates of completion do not qualify as documentation of training or as an apprenticeship.

Please choose the appropriate box on the CAP application for electronic testing or private site testing. All documentation requirements remain the same whether you test electronically or in a private site.

Do all of the Verification of Employment and Verification of Responsible Charge forms have to be submitted with my application or can I mail them separately in order to meet the Application Deadline?

All documentation should be received with the initial application. If ISA receives an application that does not meet the requirements, the applicant will be notified and given the opportunity to provide the remaining documentation. For candidates taking an exam at a private site who do not provide all documentation by the date ISA requests, you will need to reschedule to a new private site or take the exam electronically. Your rescheduled date must be within your nine (9) month eligibility period.

How do I get verification of my previous employment?

You must contact previous supervisors and have them sign the Verification of Employment or Verification of Responsible Charge form for that particular period of employment or position of responsible charge. These forms are provided in the CAP application. Information needed to process the form includes your name, title, location of employment, name of company, dates of employment, description of work activities, and your supervisor's signature. To meet the requirements, the entire period must be documented by signed Verification of Employment forms. ISA will not send these documents to previous employers. It is your responsibility as an applicant to submit all of the necessary documentation.

What if a previous employer is no longer in business or my former supervisor cannot be located? How do I verify this period of employment?

A colleague can verify this period of employment by signing the Verification of Employment form in the presence of a Notary Public.

What if I cannot locate anyone to verify a period of employment?

To apply for certification, you must document the entire period necessary to fulfill the requirement. If you cannot fully document the years, then you must postpone your application.

Does my military experience qualify towards the CAP requirements? If so, how do I document this period?

Your military experience will qualify as long as it relates to CAP responsibilities as defined in the program guide. To document this period, a copy of your military DD 214 form and a written or typed description of the duties you performed must be submitted.

Examination Process

What will I receive after I submit my CAP application?

If your application does not include all the necessary documentation, you will be notified and given an opportunity to provide the remaining documentation to meet the requirements. Once your application is approved, you will receive an Eligibility Letter with information on how to schedule your exam date and location for electronic exams, or a Confirmation Letter with the date, time, and site address of your private site exam.

Once my application is approved, how long and I eligible to test?

You are eligible to take the exam for nine (9) months after receipt your application. This will include two testing windows.

Once I take the examination, how long will it be before I am notified of my status?

For candidates who take the exam electronically you will receive immediate results of your pass/fail status. If you pass, your certificate and wallet card will be mailed within thirty (30) days. If you take the exam in a private site, you should receive notification of your status within thirty (30) days of your exam date.

What is the passing score for the CAP exams?

The passing score is not released.

How is the Passing Point Set?

A modified Angoff Method is used to determine the pass point for each form of each exam. The modified Angoff Method uses expert judgements to determine the difficulty level of the exam. The easier the exam, the higher the pass point. Likewise, the more difficult the exam, the lower the pass point.

The following is a basic outline of the modified Angoff Method (some details have been omitted):

1. A group of Subject Matter Experts (SMEs) independently rate each exam question within a given form of the exam. The ratings are defined as the probability, or likelihood, that an acceptably (minimally) competent person with the requisite education and experience will answer the question correctly. An acceptably (minimally) competent person is defined as someone who adequately performs all job functions safely and requires no further training to do so.
2. The SMEs review each exam question as group. A statistical consensus is reached for the difficulty rating of each exam question
3. After the data are refined, the final step is to calculate the mean, or average, of all the test question ratings. This becomes the overall pass point estimation.

When do I need to arrive at the test site?

For electronic exams, candidates should arrive at the exam location no later than the scheduled exam time. For private exam sites, candidates must report to the exam location 30 minutes prior to the start time of the exam to sign-in and receive instruction. All examinations are given in a four hour time period.

What should I bring with me to the exam site?

The following is a listing of items you need to bring to the exam site. A calculator will be provided on the computer for those taking the exam electronically.

Electronic Exam candidates:

- Your Confirmation Letter from Prometric and
- a government issued photo I.D.

Private Exam candidates:

- Your Confirmation Notice from ISA
- A government issued photo I.D.
- A non-programmable self-powered or battery-operated calculator
- Two (2) number 2 pencils

Are there any materials I cannot bring to the exam?

All exams are closed book for both electronic and private site exams. No reference material will be allowed in any exam room. A calculator will be provided on the computer for those taking the exam electronically so electronic exam candidates will not be allowed to bring one in. A location for personal items such as a pocket book, palmtop, mobile phone, or pager will be made available to you. Please note that storage space will be limited.

Resource Materials

What study materials are available to help me prepare for the CAP program?

A study guide is available for the CAP exam and provides practice with similar types of questions as those found on the CAP exam. *A Guide to the Automation Body of Knowledge* is a complete overview of all technical topics covered by the CAP program. Learn more about these valuable CAP study resources, including how to purchase them, by visiting www.isa.org/books. Contact ISA at (919) 549-8411 for further information.

Are there any preparatory courses for the CAP program?

A CAP Review Course is available as a preparation course for taking the certification exam. This course is offered by ISA and can be offered at your location. ISA also offers an automation professional curriculum of courses as well as distance education to assist those preparing for CAP. The CAP Learning System is also available, which is a self study program that blends printed textbooks with online review and testing tools. Please see www.isa.org/CAPlearn for more details.

An ISA Training Service Consultant can give you more information. Simply e-mail Joyce Holmes at jholmes@isa.org or Matt Rothkopf at mrothkopf@isa.org for more information on ISA Training Courses or go to www.isa.org/training.

Reschedule

If I need to reschedule the date for which I initially registered for an electronic exam, what do I need to do?

You may reschedule only one time and the rescheduled date you choose must be within nine (9) months of the application date. You must reschedule an exam more than 48 hours before the exam date for an exam in the United States or Canada, or more than 5 days for any other Prometric testing center. Candidates who do not sit for their scheduled exam and do not give proper advance notice of intent to reschedule their exam will incur a fee of \$125.

If I need to reschedule the date for which I initially registered for a private site, what do I need to do?

If you need to reschedule your private exam date with less than 45 days before the exam date due to a situation which prevents you from taking your exam as scheduled, the fee is \$125.00. You may only reschedule one time, and the rescheduled private date you choose must be within nine (9) months of the initial exam date. There is no fee if you reschedule your exam prior to 45 days before the exam date. Please mail the reschedule form with payment to ISA.

Retest

Is there a time period that must pass before I can retest?

Yes, you must allow thirty (30) days from the last exam date to retest within your nine (9) month eligibility period. Download the Retest Form and mail the completed form with payment to ISA.

How many times can I retest?

You may retest a maximum of two times within your nine (9) month eligibility period. Retest within nine (9) months of the date of the receipt of your application, and you only pay the retest fee rather than the entire application fee.

Renewal

How will I know I need to renew?

ISA sends renewal reminders in the forms of letters, postcards, and e-mails; however it is your responsibility to send the paperwork in at the appropriate time. Please ensure that you keep your contact information updated with ISA so that you will receive these notifications.

What is the renewal fee?

The renewal fee is \$175.00 for ISA Members and \$195 for non-members when renewing without an exam. Application fees for renewal by exam are \$250 for ISA Members and \$295 for non-members.

How do I apply for CAP Renewal?

You are required to renew your CAP certification every three years. Renewal applicants must pay the renewal fee, \$175.00 for ISA Members and \$195 for non-members, and submit a Renewal Application indicating the Professional Development Points (PDPs) earned in the three year renewal period. If you renew by exam, the

fees are \$250 for ISA Members and \$295 for non-members. Download the Renewal Policies and Application or contact ISA at (919) 549-8411. Payment must be received with the application before it will be processed.

When is my CAP Renewal Application due?

Renewal applications will not be accepted more than 90 days prior to your certificate expiration date. Your CAP Renewal Application is due postmarked 60 days prior to the expiration date printed on your CAP certificate. This will allow each CAP to maintain Active Status of the certification. The Renewal Application will be mailed to each CAP six (6) months prior to the expiration date on each CAP's certificate. 135 Professional Development Points (PDPs) are required for renewal. Please refer to the CAP Renewal Policies for details on what qualifies for PDPs.

How many Professional Development Points (PDPs) do I need to renew?

135 PDPs are required to renew your certification if the renewal application is received by ISA postmarked by your certification expiration date. To reinstate your certificate after your expiration date, you must submit your application postmarked within four (4) months after your certification date. Up to 90 PDPs can be earned solely from work experience and a minimum of 60 PDPs must come from work experience. The remaining points will need to be earned through training and/or professional activities.

If you do not renew within 4 months after your expiration date, your certification is considered lapsed and you must submit a new application and retest to reinstate your certification.

If my certification has expired, what are my options to renew?

To reinstate your certificate after your expiration date, you must submit the Renewal Application within four months of your expiration date and indicate 135 PDPs. Up to 90 PDPs can be earned solely from work experience. The remaining points will need to be earned through training and/or professional activities.

How do I keep records of the PDPs I earn during the three year certified period?

Use the Personal Log you received to record the number of points earned in each Activity Category. Remember to document any relevant activities, including signed statements from employers, CEU transcripts, or certificates of completion with the number of hours for training programs. Keep this information with the Personal Log in the event your CAP Renewal Application is selected for audit.

What is a Renewal Audit?

A random selection of renewal applications will be audited, and those certificants will be required to provide verification of the points listed on the application.

What happens if I forget to renew?

If you do not submit your renewal application showing 135 PDPs within 4 months after your expiration date, your certification is considered lapsed. Once your certification lapses, you must reapply and retest to become certified again.

General

How do I get a copy of my CAP certificate in case I lose it or if my supervisor wants one?

To receive a duplicate copy of your certificate, send a written request to ISA with your mailing address and payment of \$15.00 each for a duplicate certificate or wallet card (\$30 for both). Once your payment is received, a certificate and/or wallet card will be mailed to you.

How is CAP different from the Control Systems Engineer (CSE) program?

The CSE is a professional engineering (P.E.) license that can only be presented by a State Board of Engineering in the U.S. CSE is a legal license to practice engineering and the exam focuses on control systems. CAP is a certification program that documents a candidate's knowledge not only in control systems but in the broader area of automation. CAP will be offered and recognized internationally.

Private Testing

How do I establish a private exam site for the CAP examinations?

If you are inside the U.S. and have four or more applicants to test, ISA will contact a local proctor to administer the exam at your location at no additional charge. If you have less than four applicants to test, the site fee is \$250. Contact Alice Heaney at (919) 990-9401 or aheaney@isa.org for the details. ISA no longer offers private exam sites outside the U.S.

When are applications due?

Applications for private exam sites must be received by ISA six (6) weeks prior to the desired exam date.

Are fees different when testing at a private site?

No, individual fees remain the same regardless of whether you are testing at a private site or electronically.

Why Should I Join ISA?

Founded in 1945, ISA (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 problems. 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 the Western Hemisphere.

Here are some of the benefits you enjoy as an ISA Member:

1. Stay current within your field by reading *InTech* magazine—yours FREE every month! *InTech* keeps you up-to-date with the latest automation technologies through intensive, revealing, and practical articles on every aspect of instrumentation.
2. Make professional contacts and open the door to future career development by participating in Technical Divisions and other Member networking activities, such as local Section meetings, conferences, and symposia.
3. Save money! Receive valuable Member discounts on all ISA training courses, books, videos, and CD-ROMs.
4. Hone your leadership skills by serving as an ISA committee chair, Section or Division officer, or in any number of roles that give you leadership experience.
5. Keep up with industry consensus standards and practices. As an ISA Member, for only \$95 per subscription, you can download and print 10 of your choice from over 100 internationally recognized standards, technical reports, and recommended practices.
6. Receive the recognition you deserve for your professional accomplishments through the ISA Honors and Awards Programs.
7. Plus, receive a FREE e-mail address and e-mail forwarding service (yourname@member.isa.org).

Get ahead by getting involved in ISA.

To join ISA, complete the ISA Membership enrollment form and return it with your CAP Application or call (919) 549-8411 or join on-line at www.isa.org/JoinISA.

ISA

67 Alexander Drive
P.O. Box 12277

Research Triangle Park, NC 27709

PHONE (919) 549-8411

FAX (919) 549-8288

E-MAIL info@isa.org

www.isa.org



Founded in 1945, ISA (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 the Western Hemisphere. ISA is the founding sponsor of The Automation Federation (www.automationfederation.org).