

*Free Guide*

# CAP: Certified Automation Professional



Skills management software  
for frontline workers

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# What is a Certified Automation Professional?

A CAP is a certification offered by the International Society of Automation (ISA). It proves an individual's expertise in industrial automation and control systems engineering.

Certified Automation Professionals possess expert technical knowledge and skills in the following areas or topics related to automation systems:

- **Feasibility studies** – ability to scope and justify automation system projects
- **Definition** – the ability to identify customer requirements
- **System design** – ability to conceptually design control and information systems, encompassing both hardware and software
- **Development** – ability to develop and implement automation system software
- **Deployment** – ability to install, test, and start automation systems
- **Operation and maintenance** – ability to develop and implement strategies for long-term automation system support

## Who needs a CAP certification?

A CAP certification is not mandatory, but is internationally recognized. As such, the certification often plays a major role in organizations operating within the manufacturing, energy, and pharmaceutical industries, as well as any others where automation is often used to optimize processes and improve efficiency.

# How to become a Certified Automation Professional

CAP candidates must meet several education- and work-related requirements:

- Possess a four-year degree in a “technical or technology-related field,” such as engineering, chemistry, physics or math
- Have at least five years of work experience in automation

Those without degrees must have 10 years of work experience, including two in a managerial or supervisory position in a non-administrative role.

## Renewal requirements for Certified Automation Professionals

CAP certifications are valid for three years. To recertify, individuals must pay a recertification fee, as well as prove that they have earned 150 “Professional Development Points (PDPs)” by participating in or contributing to continuous improvement-related activities.

These activities could include publishing reviewed papers, attending courses, developing patents, or earning a PhD or master’s degree. All approved methods of earning PDPs are outlined within the [ISA’s Continuing Development Program](#).

# The benefits of a Certified Automation Professional certification

A CAP certification offers several benefits to organizations and individuals. Some key advantages include the following.



## Standards compliance

CAP-certified individuals possess in-depth knowledge of industry standards such as ISA-88 and ISA-95. This helps ensure that automation systems align with regulatory requirements.



## Enhanced system integration skills

CAP certification proves proficiency in system integration methodologies. This potentially results in seamless communication between diverse control systems and devices, leading to more effective and efficient interoperable automation solutions.



## **Advanced cybersecurity**

CAP-certified individuals have in-depth knowledge of best practices for cybersecurity for industrial control systems, boosting their organization's defenses against cyber threats.

## **Challenges in earning a Certified Automation Professional certification**

Earning a CAP may pose several challenges to organizations. They include the following.



### **Complex exam content**

The CAP exam is comprehensive and complicated, covering a broad spectrum of automation topics. Mastering them is no easy task.



## Prerequisite requirements

Meeting the eligibility criteria can be a challenge – or at the very least time-intensive – for individuals seeking the CAP certification, especially if their background is not directly aligned with automation.



## Resource intensity

The CAP exam preparation takes substantial time and effort, requiring flexibility and dedication from both individuals and their organizations.

# Tips and strategies for Certified Automation Professional certification

Here are a few tips for preparing for a CAP certification:

- Familiarize yourself with [CAP certification requirements](#)
- Study the [CAP Job Analysis Blueprint](#)
- Study the [CAP Body of Knowledge](#)
- Use the [ISA-provided materials for CAP exam preparation](#)

# Resources for CAP certification

For more information and guidance on CAP certification, you can refer to the following resources:

**International Society of Automation.** The ISA's website offers [a wealth of information related to CAP certification](#), including eligibility requirements, materials for exam preparation, and more.

**Manufacturing skills matrix.** AG5 offers a [free manufacturing skills matrix](#). You can use it to identify, track, and manage skills and certifications such as the CAP in your organization.

**MES skills matrix template.** AG5's [free MES skills matrix template](#) will also prove valuable in managing skills and certifications such as the CAP.

## Skills management

[AG5](#) stores all certifications in the cloud, providing all authorized personnel with access to the right version of approved certifications. This helps you easily keep track of all data and documentation related to CAP certifications across your organization.

Using AG5's skills management software, you can monitor the status of any type of certification that is relevant to your workforce, leveraging intuitive dashboards that provide you with a clear understanding of exactly what is needed to keep your employees skilled and safe.

## Frequently asked question

### **What is the scope of a CAP certification?**

A Certified Automation Professional certification covers industrial automation and control systems engineering.

### **Is a CAP certification mandatory?**

No, it is not mandatory, but is internationally recognized.

## **How long does it take to obtain a CAP certification?**

Typically several months, assuming an individual meets all eligibility requirements and is adequately prepared for the exam.

## **What are the cost considerations for CAP certification?**

Application fees, exam fees, and any fees related to preparation courses or materials.

## **What is the validity period of a CAP certification?**

A CAP certification is valid for three years.

## **Can a CAP be integrated with other management systems?**

CAP can be integrated with Quality Management Systems (QMS), such as ISO 9001, as well as Manufacturing Execution Systems (MES) to help improved production efficiency and coordination.

## **How can you learn more about a CAP certification?**

Visit the [ISA's website](#).

## **Sources**

- [International Society of Automation](#)

## Author



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## Revisions

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