



Access Control Specialist Level One: Course Four – Smartcards
Course Time: 1 hour

Course Description

One of the most confusing, even intimidating questions will often be “What format should these cards have?” This module can’t answer that question for you, but it will give you all the facts to be able to make the right choice every time. The structure of formats and their function in the credential, reader and controller are clearly explained.

The mere mention of using smartcards in access control can cause a blank look to appear on the face of an otherwise competent technician or sales person. It doesn’t need to be that way. This module will strip away the fog around smartcards and show how appropriate they can be for any access application. The focus is on contactless smartcards but contact cards are also explained. All the terminology and regulating standards will be described in layman’s language. Extreme data security and multi-function capabilities are two huge advantages of contactless cards. The security feature called mutual authentication is cleverly revealed through animation graphics in a way that anyone can understand how it works. Security and storage of multiple types of data such as a card number, biometric template and virtual cash are all explained.

Course Outline

- Introduction
- Smartcards
 - Objectives
 - What is a Smartcard?
 - Smartcard Types
 - Integrated Circuit Card
 - Microprocessor Card
 - Smartcard Terminology
 - Contact Cards
 - Contactless Cards
 - Contactless Cards
 - Integrated Circuits
 - Anti-collision
 - Smartcard Security
 - Mutual Authentication
 - 64 Bit Key
 - Card Serial Number
 - Diversified Key
 - Sending Data
 - Card Security
 - Reader Translation
 - Controller Formatting
 - Smartcard Uses
 - Data Storage and Retrieval
 - Authentication
 - Cryptographic Token
 - E-purse Functions
 - Application Management
 - Smartcard Standards
 - Platforms
 - MULTOS
 - Java
 - Global Platform: Seven Components
 - Customer System
 - Pre-Processing System
 - Data Collator System
 - Issuance System
 - SCMS
 - Post Issuance
 - Terminal Network System
- Conclusion