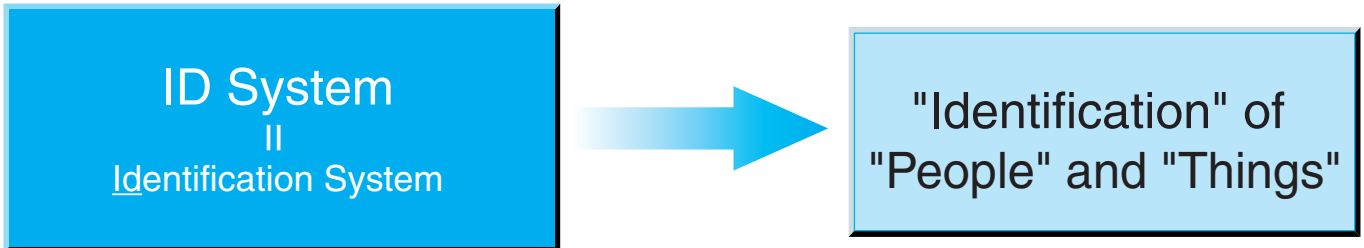


What is an ID System?

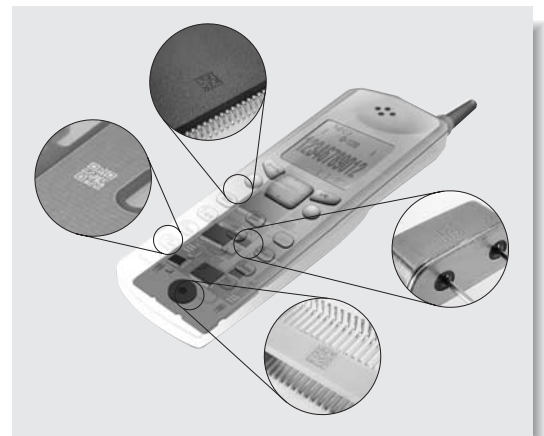
ID system stands for the Identification System. It is a system to read and identify information on people and things, including AIDC (Automatic Identification & Data Capture). AIDC uses devices that combine hardware and software and does not require human intervention to identify information obtained from media such as barcodes, 2 dimensional codes, RFID systems, iris, fingerprints, voice etc.



Barcode/2 Dimensional Code Applications

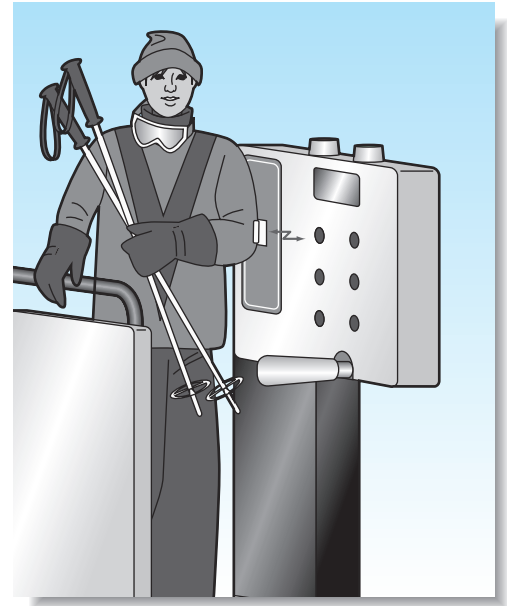


Barcodes are also known as linear symbols, and 2 dimensional codes are also known as 2 dimensional symbols. Barcodes are attached to food and commodity in a variety of industries such as retailers, distributors, logistics company where the automation has been introduced. Meanwhile, 2 dimensional codes have become common to catch up with the expansion of information control as well as to save space.



■RFID System Applications

RFID System is an abbreviation of Radio Frequency Identification System. It is an "Identification system using wireless communication" that enables transferring data between "RF Tags (or Data Carriers)" that are held by men or attached to objects and "Antenna (or Reader/Writers)". It is a kind of radio communication system.



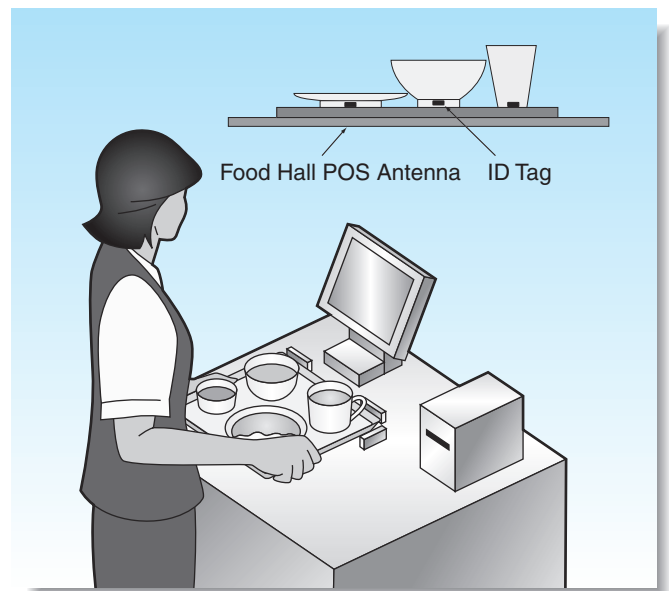
Examples of such a system that may be familiar include the "electronic ticketing system at train stations" and "touchless gate system on ski lifts".

In these examples, tickets or lift passes are RF tags and the ticket gate or ski lift is an antenna.

Such systems are also used for the automatic payment in food halls. In this case, every food item has an RF tag attached to it, and an antenna is inside the table on which the food tray is placed when making payment.

This makes it possible to not only automatically calculate the price of the food, but also automatically display information such as total calories.

Recently, this kind of system has gained a lot of attention to realize a ubiquitous society.



What is an RFID System?

An RFID system makes it possible to read and write data without contact, using electromagnetic or electric waves. Information can be read irrespective of the quality or surface condition of the item to be read. The large communication area helps to achieve high reliability in communication. The implementation of a RFID makes it possible to "unite items with their information", which allows for the creation of a highly flexible and highly reliable system.

RFID System → ID System using electric and electromagnetic waves as a medium

Radio Frequency Identification System

Definition of "RFID" by Japan Automatic Identification Systems Association (JAISA)

- ① Portable size
- ② Information is recorded on an electronic circuit
- ③ Contactless transmission is performed

JIS Definition of "RFID"

A generic name for a device where data is read and written in a semiconductor memory with contactless transmission over short distances, using inductive electromagnetic field or waves.