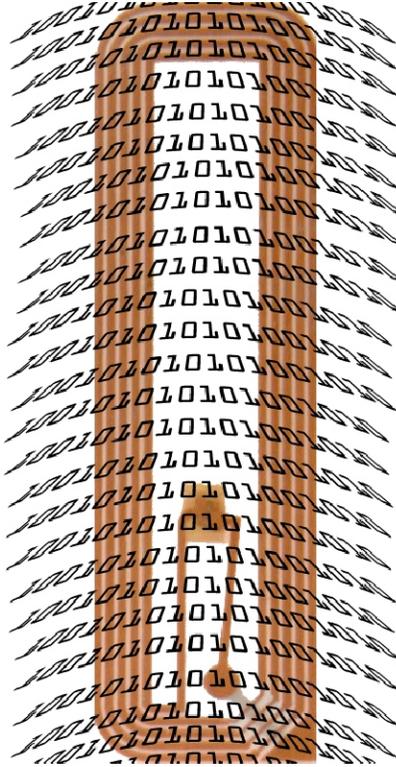


- +** Add Values
- Reduce Overhead
- ÷** Re-Engineer the Business Process
- ×** Multiply Returns On Investment
- ?** Ask us how



ReALTagCoder

RFID was discovered around 1940's but due to various factors, it remained ignored for quite sometime. More than half a century after its inception, radio frequency identification (RFID) technologies are finally living up to their long promised capabilities. Customers are being rewarded with pervasive deployments in closed loop applications and the initial deployments in the more pervasive open loop supply chain management applications.

By providing accurate, real-time, human out-of-the loop asset and product monitoring throughout the world's supply chains, RFID technologies are beginning to improve the efficiency and security of these chains. The RFID technologies in these open loop supply chains is continuously being optimized with all of the learning and growing pains that the introduction of a new technology entails.

Radio frequency identification (RFID) technologies are rapidly becoming ubiquitous for product identification as business seek to improve supply chain operations and respond to mandates from key customers. As with the introduction of any new technology into an application, the use of RFID technologies to improve supply chain management, among the many applications currently adopting RFID technologies, creates new security and privacy issues that must be addressed to ensure the successful integration of the technologies.

RFID is a form of enabling technology that enables machines to collect information through sensors. Warehouses will sense whether they become low on stock or overstocked. Luggage is routed automatically from airport to airport. Healthcare, libraries and many other institutions are all influenced if not changed by RFID. The

benefits are potentially immense, but benefits are only if the RFID systems are designed properly.

Good System design start with good database design

Databases and database schemas form a critical part of RFID systems and are considered the backbone of RFID automation. Data in the RFID context is stored in tags, in the form of Tag Ids or as Tag Data or both. Collecting data acquired from the tags through an antenna using the reader is another important task and streamlining such data to make the database and storing in the server is quite substantial and the task is related to RFID database management.

Generally, an RFID reader interacts with the database through the middleware software. Such middleware software co-ordinates with the business logic and submits the data in an appropriate format to the database. Raw database collection has limited usability unless proper definitions or a schema exists of the database about the data that is being submitted by the middleware software. The database schema depends upon the type of data that the user needs to store and differentiate the tag data.

There are several reasons when one requires a dynamic environment in the tag ids. Some of these reasons are

- (1) reusability of the tags
 - (2) resetting a corrupt tag id
 - (3) attributing multiple tags in-order to the same tag id to the same asset, etc.
- In-order to achieve the objective of modifying the tag formats, users need to program



the tags using either the reader software or through some other customized solution. The reader software can program the tag but will not dynamically store the data where necessary or required. For instance, tag programming requires storing the data in an Excel spreadsheet for later printing due to the fact that the volume of tags only substantially increases as item-level tagging is becoming more practical.

ReALTagCoder assists in programming the tags in a batch mode. Users can automate the coding process including how many tags need to be manually programmed and how many will be programmed utilizing an RFID printer. The following are the salient features of the ReALTagCoder:

1. System Feed

The System Feed option allows the user to directly program the RFID tags using the system software which communicates with the supported RFID reader available in the network. As soon as user programs the tag, tag data is directly sent to the database according to the customized settings information provided by the user. Such database can be accessed by any third party application and vice versa to integrate.

2. Auto Feed

The Auto feed option provides the user to place multiple tags which are already programmed directly into the database according to the data format specifications provided by the user. This option is favorable if the user requirements are to place all pre-programmed tags in the database at once.

3. Manual Feed

Manual feed choice allows the user to decide on the pattern of tag data to be placed into the tags. Upon completing the tag formatting (or tag erasure), the user can obtain an Excel spreadsheet which enables the user to manually program the tags utilizing any available RFID reader. The Excel spreadsheet also allows the user to email the tag programming request to another remote user.

4. Data Correlation

By utilizing the above options and various customization settings, the ReALTagCoder user can program the RFID tags according to a set database schema. This leads to identify the accurate data collected at a point.

Reltronics Technologies integrates all the readers available in the market and enables various functionalities of the application such as AMS, RMS, ReALTagCoder, SmartMobile and ReALTrack-Locater. The SmartInstrument™ is a versatile middleware which supports the following readers:

- ✓ Intermec IP4
- ✓ Intermec IF5
- ✓ Motorola Symbol MC9000
- ✓ Motorola Symbol MC9090
- ✓ Motorola Symbol XR400
- ✓ Alien ALR9800
- ✓ Psion 7435 Gen 2
- ✓ WaveTrend RS-232
- ✓ WaveTrend TCP/IP
- ✓ ThingMagic M4
- ✓ ThingMagic M4e/h
- ✓ ThingMagic M5e/h
- ✓ Intelleflex Family of readers

The versatility of SmartInstrument™ with the ReALTagCoder enables it to be the most efficient, plug and play RFID middleware.

Benefits

ReALTagCoder provides several advantages while creating the tag data as per user requirements. The following are some of the key benefits:

- **Good RFID Tag Database design**

Allowing the user to modify the format of the tag, leads to designing the tag

database as per user requirements and subsequently as per application requirements.

- **Time and Labor Saving**

By automating the tag database creation process, ReALTagCoder saves time and labor involved in the effort.

- **Economical solution that links with other RFID applications**

ReALTagCoder is appropriately priced towards being a robust and yet economical RFID data formatting solution.

- **Robust and adaptable**

The ReALTagCoder is available as a standalone application or can be integrated with other Reltronics Technologies RFID applications such as SmartInterpreter, ReALTrack-AMS, ReALTrack-RMS etc.

- **Increase the speed of RFID deployment**

Good RFID database development is important in RFID application implementation scenarios. Good database provides a great interface for the user application and supports the ease of use. ReALTagCoder facilitates a quick design and development of the RFID database.

- **Generates the Excel file to transfer the data**

With ReALTagCoder, the RFID data created is exported into an Excel format prior to tag programming. The Excel spreadsheet is portable and can be sent to remote users quickly via the site email system.

- **Tag will store for future retrieval and identification**

Collected RFID tag data is stored in the database and used according to the requirement to identify the tags anywhere.

- **Supports all EPC tags**

All the EPC tag formats like Class0+, Gen1, Gen2 tags are supported.



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