FRED: 灵活的無線射頻辨識（RFID）標籤編碼和解碼技術
Flexible RFID Encoder and Decoder (FRED)

FRED是一套整合的軟件工具，能大大改善貨件管理，對分秒必爭的航空物流業尤其重要。它能有效地編碼和解碼RFID標籤數據，還提供標籤打印、閱讀和其他處理功能。FRED基於XML技術的數據編碼方案和新穎的數據壓縮方法，使用靈活，透過用戶定制的數據格式，FRED能夠有效地編製自定的標籤數據。FRED適用於航空運輸及物流管理，能把必需的數據寫入RFID標籤，如航空運單標籤，以加快貨物登記和核對的流程。FRED還可以編碼不同的RFID標籤數據，能夠廣泛應用於基於RFID技術的系統。

FRED is an integrated software tool for the efficient encoding and decoding of RFID tag data. It offers major applications in air-freight logistics management (e.g., to facilitate air cargo processing). It also provides RFID tag printing, reading and other processing functions. FRED uses a flexible XML-based data encoding scheme and a novel data compaction method which allow it to encode RFID tag data efficiently according to a user specified data format. FRED also provides an all-in-one package for specifying data formats, entering data and importing/exporting data files. FRED can also be used to support many other RFID-based applications.

Special Features and Advantages

FRED provides the following:

- A flexible XML-based data encoding scheme
- An efficient data compaction algorithm
- A user-friendly data specification tool
- Effective tag encoding / printing and decoding / reading functions
- Other useful supporting / supplementary features

Application

FRED has major applications in air-freight logistics management. FRED allows essential data to be written into RFID tags or labels (e.g., air waybill labels) for air cargo check-in and check-out processes. FRED can also be used to encode RFID tag data for use in a wide range of RFID-based applications.

Awards

Silver Award, The 38th International Exhibition of Inventions of Geneva, Switzerland (April 2010)