

BE RFID Software Suite List of Products

Overview of Products Belonging to the Business Effect RFID SW Suite

A multilevel hierarchy of interoperable software products that cover the needs of various user groups, from software developers who want to exploit Business Effect RFID equipment, to organizations that require end-to-end, shrink-wrapped RFID applications

Software Development Tools

These are pieces of middleware with no user interface that allow software developers to seamlessly integrate Business Effect RFID hardware devices and products (RFID portals, special constructions, etc) with their applications. There are 2 main types of such middleware:

- **"Wedge"** type middleware, which simulates barcode scanners using RFID based equipment, therefore allowing existing applications to operate utilizing RFID hardware without no modifications whatsoever
- **"API"** type middleware, which is a set of routines that realize the fundamental functionalities that a specific type of RFID equipment was designed for, hiding from the application programmers the complexity and peculiarities of the particular underlying hardware, therefore allowing them to readily develop their own applications under the **Microsoft® .NET development platform**.

Business Effect utilizes these same tools to develop its own applications (levels 2-5), hence ensuring their absolute **portability**.

Kernel Applications

RFID Server is the "heart" of **BERSS**, since it is necessary for the operation of all other applications (levels 3-5) and contains the common central database. **RFID Connector** acts as a two-way staging agent in the case that data has to be interchanged / synchronized with other third party systems (through ASCII, Excel, XML or other types of files, specific APIs, WEB Services, etc).

The central database contains all **RFID tag mapping tables** in the case that RFID codes used by BERSS applications have to be translated to codes recognizable by third party systems and vice-versa, so that these can interchange data between them (types C & D in figure below). The same database also contains all the (synchronized) subsets of third party system tables (asset / stock item, customer and other master files, document and other transaction files, etc), as well as all other **RFID element** tables that are required for the operation of BERSS applications.

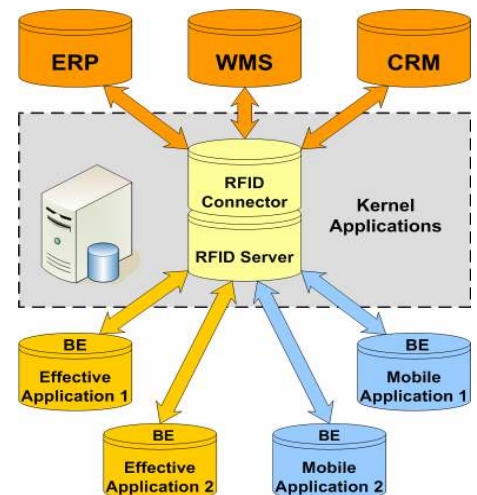
Type	RFID Tag Codification Type	Mapping Table
A	Printed / Programmed by Third Party System (TPS)	N
B	BE Codification containing TPS Main Code (Substring)	N
C	Other BE Codification (Category & Type Based)	Y
D	Pre-programmed by Manufacturer at Factory	Y

These multiple hierarchy static or dynamic elements (assets, stock items, locations, resources and third parties) are things that an organization may want to recognize, track, manage and control utilizing modern automatic object identification technologies like RFID.

Conclusively, **RFID Server**, which is based upon the **Microsoft® SQL Server platform**, is compulsory for all BERSS installations, whereas **RFID Connector** is needed only when interoperability and data interchange with other, third party systems is required.

Business Effect RFID SW Suite Application Levels & Types

1. Tools	Middleware for Business Effect HW Devices & Products
2. Kernel	BERSS Foundation & Communication Applications
3. Utilities	Building Block Applications for Usual RFID Based Tasks
4. Effective	Complete Solution Applications with Embedded Utilities
5. Mobile	Complete Applications for Mobile RFID / Barcode Terminals



BE RFID Software Suite - List of Products

Utility Applications

These are applications with a simple and user-friendly interface, which perform usual, everyday basic RFID based functions. In that sense, they:

- **Can operate in a standalone way**, communicating with third party applications to receive, process and return data, hence enabling them to perform RFID based tasks
- **Are embedded as building blocks** in end-to-end BERSS solutions ("Effective" applications).

Object Tagging

Prints & Programs RFID tags (types B & C) from automatically fed or manually entered lists of RFID elements, automatically maintaining internal counters to ensure their uniqueness. For types C & D, it allows users to correlate the RFID code with the main (recognizable by third party systems) code of each element, either individually using a PC / handheld terminal and a barcode scanner, or en-masse through RFID equipment (e.g. RFID Cube, etc), maintaining the required mapping tables.



Object Recording

Continuously records and stores the full details (date, time, RFID code, equipment ID, etc) of the movements of RFID elements through RFID portals, special constructions, etc. Provides basic editing and parametric reporting facilities (code masking & time period filters, sorting & aggregation criteria, etc) and feeds raw data (manually or automatically) to other applications.



Object Checking

When activated, it records en-masse RFID elements utilizing RFID Portals (Cubes for densely packed objects) or mobile readers and feeds raw data to third party applications. If also fed with lists of expected elements, it pinpoints and edits deviations through an intuitive user interface.



Object Handling

When fed with lists of objects to be sent / received, it checks in real-time the respective processes that take place simultaneously at several RFID portals through a parametric, intuitive, dashboard-like user interface, producing optical and sound warnings at both the supervisor workstation and the relevant portals (if equipped with a light stack and/or a siren) in case of errors, thus enabling the supervisor to fully control all tasks.

Effective Applications

A comprehensive range of end-to-end, fully parametric, integrated applications with rich functionality, which may operate either standalone, or in conjunction with third party systems (see special leaflet).

Mobile Applications

A range of applications for handheld terminals running the **Microsoft® Windows CE** operating system and equipped with RFID readers, which interoperate fully with "Effective" applications (see special leaflet).



Business Effect SA

Marathonos Av. & Ag. Athanasiou Str.
145 69 Anixi, Athens, GREECE
Tel: (+30) 210 8144474 – Fax: (+30) 210 8144475

www.businesseffect.gr