

RADIO FREQUENCY IDENTIFICATION (RFID) FOR DOCUMENT TRACKING

Locating critical files and documents is one of the greatest problems in offices today. Time is wasted chasing misplaced files, deadlines are missed while searching, and everyone is interrupted by broadcast emails



RFID technology can dramatically reduce costs associated with tracking documents

How RFID Document Tracking Works

The basic idea of using RFID to track documents is a simple one:

- Each document is tagged with an RFID tag, in the form of an adhesive label.
- Staff may also be issued RFID cards as identification for checking documents in and out.
- Fixed RFID reader stations at entry-points of file-room(s) are used by staff to check documents in and out.

Tagged Documents

When combined with employee identification systems using cards or fingerprint sensors or tags, the RFID system will enable real-time recording of which employees are removing or replacing which documents, whether authorized or not, from a filing cabinet or room.

Tagged Cartons

By equipping document archival cartons with passive RFID tags, and the use of RFID readers throughout the facility, our system offers Real-Time 100% annual inventory and audit reporting for clients, auditors, and authorities.

Compliance and Industry Standards Assured

FSN uses only non-proprietary, industry-standard RFID hardware and tags. We won't lock you in with proprietary solutions using proprietary standards. RFID tagging supports strict compliance with data management regulations such as PIPEDA(Canada), the Health Insurance

Portability and Accountability Act (HIPAA), Sarbanes-Oxley (SOX), the Gramm- Leach-Bliley Act (GLBA), the Fair and Accurate Credit Transactions Act (FACTA), and others. RFID document-tracking systems save time and money by drastically reducing:

- Time spent searching for lost or mis-filed documents
- The financial and legal impact associated with losing documents



With this it is easy to search and secure your documents

BENEFITS OF RFID FOR DOCUMENT TRACKING

Here are some several benefits that can be achieved with our RFID solution:

Locating:

Identify the precise location of a document instantly; saving valuable time spent locating, re-doing, or re-writing documents, and ultimately improving your ability to deliver service to your clients.

Searching:

RFID systems can even be added to existing systems to enhance the capability to search for wayward files or documents. It could be that the right choice is an enhancement to your existing system.

Securing:

If a sensitive or important document leaves a designated area with an unauthorized individual, or is gone for longer than a pre-determined period of time, an alert can be sent via e-mail, text message, or alarm will be triggered to have the file retrieved.

Monitoring:

Automatically track how long each document is "checked out" and by whom, allowing you to better classify files for archiving or storage purposes or track down missing information from a file. Systems can even be set up to have, multiple items associated to a file so if documents or evidentiary information goes rogue you can track when, where, and with whom.

File Tracker:

Utilizes Passive Radio Frequency RFID tag readers located at key areas in the office where files will be accessed or reviewed. As the file moves around the office its last known location can be recorded and tracked and the information logged into the tracker database along with who had the file, and if that person wears an ID badge as well. To locate the item the user simply enters the file ID number. File tracker will tell the user of the last recorded location. File tracker offers a secured login and administrative options like view, add, or modify. And, since RFID tags have data storage capability beyond that of bar-codes, additional information can be written or stored on the tag continuously. With access badges you can also track access and movement of people in and out of secured areas.

File Finder:

As an extension of the file tracker application, File Finder is an application that resides on a mobile hand held device. File Finder is used to sort through or track rogue files stored in the wrong location, been moved out of the file area to an office, or located in a storage area. Functioning as a location tool, when in the "find mode", the hand-held will only read the ID of the tag entered by the user offering both audible and visual indicators to tell the user when it has found the file. Simply enter the ID, pull the trigger and point at the files and the hand-held does the rest.



The BEST from our testing”.....for office use.....

Lightweight and ergonomic design, RFMobile™ portable reader with up to 10 ft read range

Hand-held RFID readers are used to:

- Perform rapid inventory checks
- “Hunt” for missing documents by waving the reader over shelves, filing cabinets, or piles of documents
- Missing Files are easily found with the Detector. The long 10-foot read range alerts you to the missing File, then directs you to their specific location.
- Our clients report completing regular Audits in 15% of the normal time, and finding missing Files in 5% of the normal time.

CASE STUDY

The Bank of Nagoya claims to be the first to implement this application in April 2005. RFID technology is now mature, ready for prime time, to make a drastic improvement in your organization's ability to track and manage documents. Subsequently, many legal, accounting and government organizations have enhanced their operations with RFID-enabled Document Tracking. The RFSmartTag supports powerful functionality like Inventory, Searching, Passive Tracking, Exit Controls, and more. There is no need to touch each File as our Gen 2 tags can respond to our readers from up to 12 feet away, so now, RFID Readers can be fitted behind ceiling tiles in offices, or can cover doorways and corridors. The information is automatically recorded. Transferring tag data to the database is a simple and automatic process, updating the database with current File locations. FSN provides a variety of RFID tags fit for different purposes. Our low-cost tags for File tracking can be read from 12 feet away when attached to any paper-based or plastic media. We also provide asset tags suitable for application on items with metal content such as printers, laptops, and other equipment

In addition, document tracking system help to keep and manage knowledge gained in every project. Data written in a document can be managed effectively. Information and experience obtained during earlier project can be reused in a later project. A good document management and tracking system helps to reduce significant cost and improves productivity. Using RFID as document tracking medium is the best technology of choice. If your needs grow, additional implementation can be extended easily such as auto check in and check out station, detection of lost document via mobile scanner and many others. Additional tags can be purchased to extend to site offices and other branches. Ultimately, document tracking system is an essential system required in any organization.

Tamper Evident Technology

FALKEN Secure Networks and Topgy System & Management Consultant work together with customers to design and implement physically secure solutions to track, seal and/or monitor valuable assets, secure crime scene evidence, documents and case files. Topgy System & Management Consultant a broad suite of patent-protected RFID and non-RFID technologies incorporated into low cost pressure-sensitive security seals.

The *Smart&Secure Inform* RFID tag disables the RFID functionality of tags, labels and seals if tampering occurs. This creates a unique, one-to-one relationship between the tag and the asset to which it is attached, preventing unauthorized tag removal and transfers. Thus, a secure chain of custody is established whether in storage, or when transporting court documents and crime scene evidence.



Smart&Secure Insight tag is a pressure-sensitive RFID label incorporating a chip, antenna and dedicated tamper circuit manufactured from destructible conductive ink. Smart&Secure Insight's tamper layer causes disruption to the tamper circuit on tampering or removal of the tag without affecting the chip or antenna. During a read operation, this disruption is sensed by the chip and the tampering is reported to the reader.



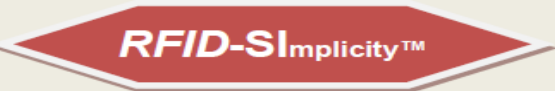
RFID APPLICATION SOFTWARE – RFID-SImplicity™

Despite all progress made during recent year in RFID technology and cost reduction, RFID implementation projects remain complex, tedious and involve a significant risk level. The main reason for RFID projects failures and complexity does not lay on the hardware side, but rather on the software side; Actually, 80% of a typical RFID project overall cost is being spent over development and deployment of specific software. These custom-made solutions are also hard to maintain over the years from the economic point of view as the entire maintenance cost are borne by each single customer; consequently they tend to become rapidly obsolete. Hardware Vendor software packages are always limited to their own hardware, while the success of any RFID projects starts by the freedom to select for each project the most suited hardware.

Our Software, **RFID-SImplicity™** closes this major gap. Being an end-to-end software package and at the same time open to any RFID hardware, **RFID-SImplicity™** reduces significantly the total cost of RFID project implementations, without compromising on RFID hardware selection.

RFID-SImplicity™ offers a wide range of dedicated Application Packages for various vertical markets In order to customize the application to the specific project requirements, each **RFID-SImplicity™** Application Package, includes a powerful parameterization tool, enabling the implementation of RFID projects in a very short time (days to weeks), while completely eliminating the risk inherent with specific development and System Integration projects.

The **RFID-SImplicity™** Core provides services such as *communicating with the RFID hardware, database management, 3rd party integration, user permission* and more. It is shared by all Vizbee Applications, and warrants for a robust performing infrastructure. The core is highly scalable. It allows gradual implementation from a small partial project and up to large multi-site installations,, thereby avoiding the risk implicitly involved in big- bang operations. The **RFID-SImplicity™** Core is an open system with exhaustive APIs to facilitate its integration within other systems in the organization like *ERPs, Access control, RFID-enabled Personnel ID Badges, Video surveillance*, etc. Sharing the robust Core, dedicated Application Packages were developed, to serve the needs of different vertical markets.

HEALTHCARE-ASSET & PATIENT TRACKING	MUSEUMS & GALLERIES	ASSET TRACKING	LOGISTICS-YARD & FLEET MGMT.
DOCUMENT TRACKING	POLICE PROPERTY & EVIDENCE TRACKING	CONSTRUCTION LAY-DOWN YARDS	LIBRARIES
GUARD TOUR	PRISONS	CONTAINER TERMINALS	RAILWAY LOCOMOTIVE & WAGON TRACKING
COLD CHAIN-SECURITY, LOCATION and TEMPERATURE TRACKING	MANUFACTURING WORK-IN-PROCESS (WIP)	VEHICLE TRACKING	PERIMETER PROTECTION
WIRELESS SENSOR NETWORKS	PARKING	IT and MOBILE ASSET TRACKING	LINEN & UNIFORM LAUNDRY
WASTE MANAGEMENT	RETURNABLE CONTAINERS & PALLETS	STUDENT & SCHOOL BUS TRACKING	PRECAST CONCRETE
CORE AND WIZARD-ENABLED BUSINESS RULES ENGINE			
			
HARDWARE	API	RELAYS	DATABASE

Priority to the Graphical User Interface Domains

RFID-Simplicity™ recognizes the primordial importance of Functional and Graphical User Interface simplicity and user friendliness for the success of projects. Benchmarks and test groups are run on each interface design to validate that it is intuitive enough, so that a non-educated operator can use the system after less than 30 minutes of training.

Select the best suited RFID hardware for each project

The selection of the best suited RFID technology is critical to the project ultimate success of any RFID project. Issues like the technology, radio frequency, radio system infrastructure, the lifetime, the physical size of the tags, maintenance requirements etc., must be carefully taken into consideration in selecting the hardware that will be used for each project.

With the **RFID-Simplicity™** platform, the system integrator can freely select for each project the RFID hardware or even combine different hardware in the same project in order to optimize, both technically and economically, the performance of the system.

Business Rules Engine

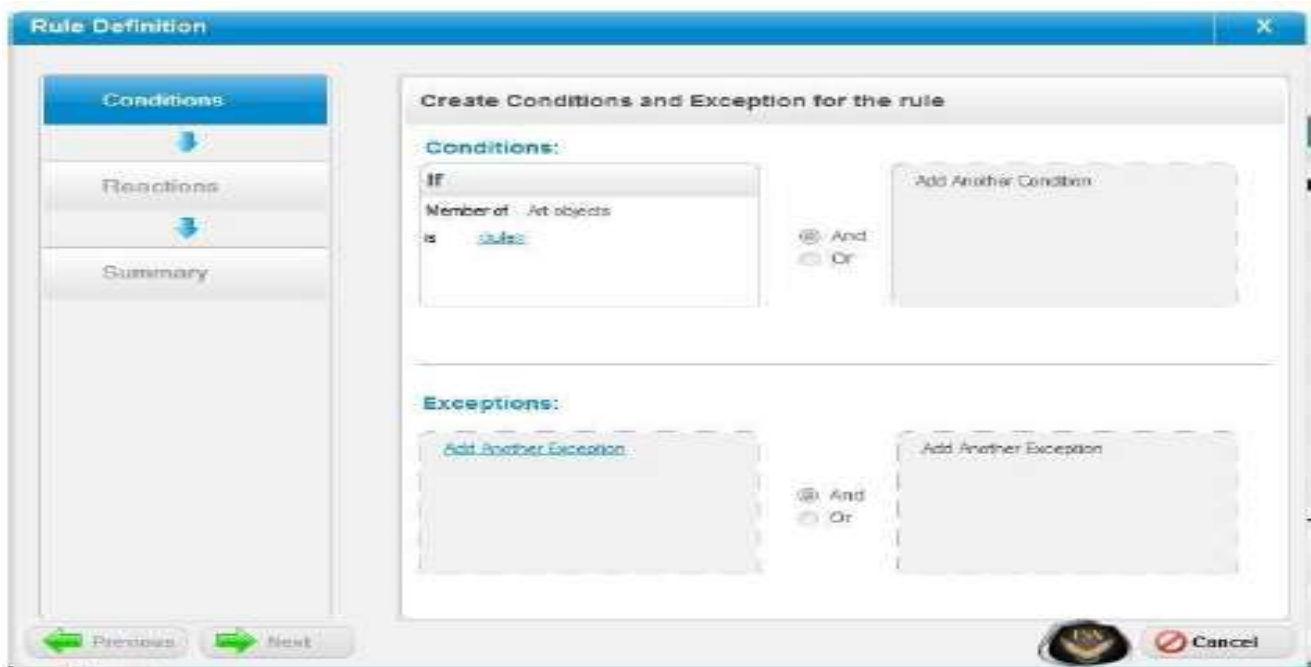
All **RFID-Simplicity™** Applications include an advanced and intuitive Wizard-assisted Business Rules Engine enabling the seamless programming of business/security rules for every tracked item, whether it is an asset or a person. Complex rules can be programmed easily assisted by the **RFID-Simplicity™** Rules Wizard. Each rule includes the definition of the system reaction to its violation, including: *Display of the alert on the map, Audio alarm, SMS, emails, opening or closing contacts, focusing a PTZ Camera on the Alert location and commencing recording, or sending commands to third party systems.* Multiple condition actions and alerts can easily be added and modified as required.

The system works on standard PCs. Each processor can handle up to 200 RFID events / sec).The numbers of processors and servers are not limited. Web Operator Clients are available. For each dedicated application, specific functions are supported on PDAs.





RFID-Simplicity™ can be used either as the front end and even display information received from other systems. Alternatively, **RFID-Simplicity™** can be used as a service to other systems for real-time location, rule engine, settings etc, while using the other system's user interface.



The RFID-Simplicity™ parameter-driven platform enables quick and easy implementation of RFID projects –for any sized application.

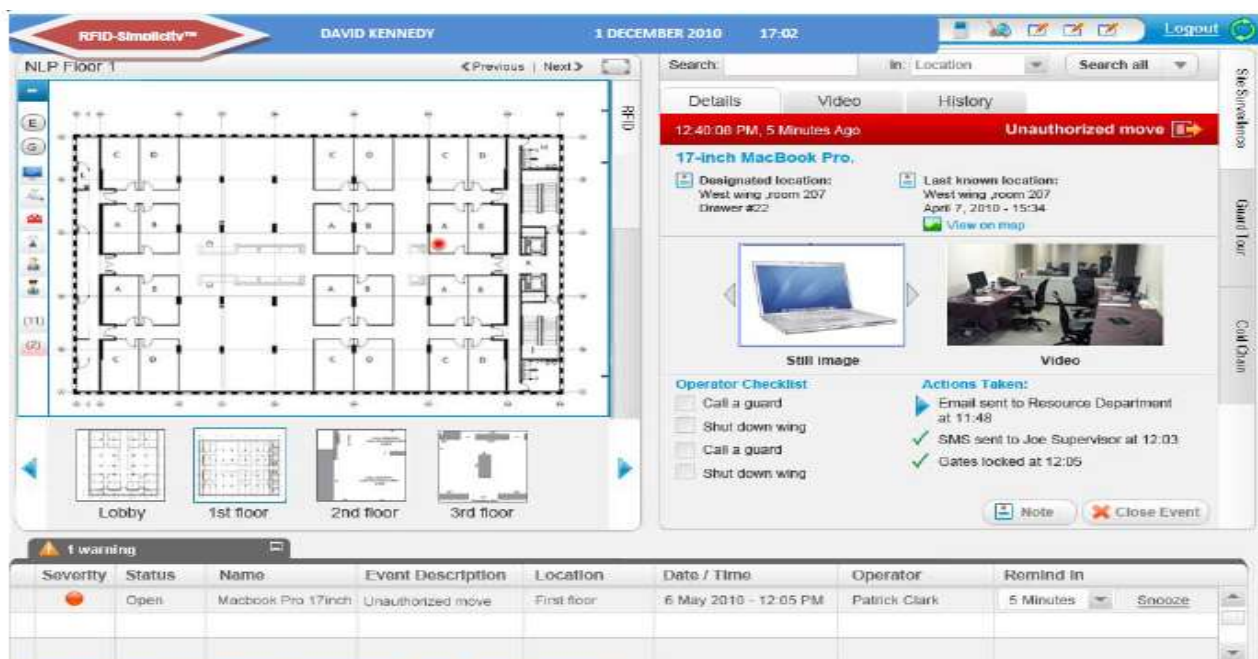
The FSN generic platform is a comprehensive, fully integrated solution to drive cost out of RFID system acquisition while offering flexibility and ease-of-use. It enables a total solution include all RFID software and hardware, such as Tags, Sensors, Fixed and Handheld readers, Antennas, GPS and GPRS communications as well as world class Enterprise 802.11n WLAN as required. It can monitor in real-time thousands of tags (people or assets) their presence, location, as well as other parameters, such as movement, tampering, verticality n(tilt), temperature, humidity and more.

- Single, unified interface for multiple applications
- Supports all RFID technologies in a unified, single system
- Parameter-driven customization, no coding required
- Evolves with system needs , Powered by Vizbee™
- Open, flexible architecture and APIs for multi-system integration
- Easy to use SDK allows System Integrator or client modifications and is .NET compatible. Full mobility integration with GPS/GPRS/GSM and 802.11n WIFI. Seamless integration with video, alert and access control systems

Single, unified platform for maximum visibility and low cost of ownership

The **RFID-Simplicity™** generic RFID platform was designed with the user in mind. The intuitive multi-lingual human Interface is map-driven and the software and user interface delivers an intuitive, comprehensive visual overview of system status. Most actions are performed from the main screen with one button click. The system includes Administrator, Operator and Service Web access for customer provided workstations.

Single site small **RFID-Simplicity™** projects can grow gradually into multi-site and multi applications projects with hundreds of receivers and tens of thousands of tags, just by adding tags, receivers, and software licenses at each stage.. New releases of **RFID-Simplicity™** Core and Application Packages are released every year. These upgrades include new functionalities, new hardware options and warrant that the system remains state of the art over the years. Upgrades are provided automatically to all customers on the current Maintenance and Support subscription.



A SCREEN SHOT OF THE IT ASSET TRACKING APPLICATION