
Using RFID for Records Management

by Tom Pemberton, FileTrail Inc.

Introduction to RFID

There has been a growing buzz in the media about Radio Frequency Identification (RFID) since early 2004. Everyday we hear more about adoption of RFID by the US military, Wal-Mart, and other large retailers. However, the focus on supply chain management and an abundance of technical jargon has many unclear on where RFID fits into records management. This article provides insights into RFID technologies and some practical uses for RFID in records management.

What is RFID?

RFID is a term for technologies that use radio waves to automatically identify individual items. The RFID tag carries a unique number that is used to identify a file or document. As a tagged item passes an RFID reader the reader picks up the unique number of the tag. This information is passed back to a software system which records the fact that certain files were at that reader location at that specific time.



Which RFID is Best?

RFID has been around for a long time, and its evolution has spun off several technologies. This article focuses on the two RFID technologies that are practical for records management.

The first RFID technology used in records management, HF (aka 13.56 MHz), was introduced in file tracking systems in 1998. The term “Passive” means that there is no battery in the tag. This technology has had limited deployment due to its short read ranges and high tag cost.

The HF technology is outdated and increasingly being replaced with the Gen 2 standard using UHF (aka 915 MHz) RFID. This is the technology used by Wal-Mart and other retailers. Longer read ranges and lower tag cost make Gen 2 the RFID technology of choice for records management.

There are key differences between HF and Gen 2 RFID. In addition, they are incompatible – once you have chosen to implement HF RFID you cannot use Gen 2 RFID without re-tagging all your files and buying new hardware.

The table below outlines the differences between the two RFID technologies that are practical in a records management solution.

Key Differences Between Passive RFID Technologies

	HF RFID	Gen 2 RFID From FileTrail
Adjustable Read Distances	3 to 8 inches	3 to 144 inches
Cost of an RFID Tag (volume-based)	\$0.87 - \$1.20	\$0.35 - \$0.48
Passive Tracking with RFID Zones	Not Available	Available
Technology Standards	Proprietary	Interoperable

Best Practices in Filing Systems

RFID is a tool that helps save time and money. Its unique benefits compliment the other tools used in filing and records management, including bar coding and color coding.

A common myth is that RFID replaces bar coding. RFID has benefits over bar coding but should not eliminate the use of bar codes. We recommend to our clients that they keep the bar code on their labels after they implement RFID. Bar code printing is free and they are a good backup in case of equipment failure. Also, there are situations where re-purposing existing bar code scanners provides operational benefits with a cost-reduction.

Another common myth is that RFID eliminates the need for color coding. The claim is that “find-a-file” functionality on a portable scanner will locate mis-files in your file room. While this is true, it is more time-consuming than using color coding to prevent mis-files. Color coding is still the best investment for minimizing filing and retrieval time.

Automating File Rooms with RFID

RFID saves time in check-in and check-out over the use of bar codes. Because radio signals from the RFID reader pass through paper, cardboard, wood and other non-metallic materials, a stack of files can be processed all at once without the need to handle the files individually.

RFID speeds file room audits. We have several clients who try to inventory their file room quarterly or annually. This process usually takes a whole weekend since each file must be handled in order to scan the bar code. In contrast, our portable RFID reader scans files in bulk from a distance, allowing the same file room to be swept and inventoried in under an hour.

Using RFID Outside the File Room

File Detector

Lost files are easily located with the *FileDetector*[™] feature on the RFMobile[™] **portable reader**. As you move through offices the reader beeps as you approach a lost file. The screen displays the name of the person who requested the file and where their



cubicle or office is located so you can route the file to them immediately.

Auditing

Desk audits are fast and efficient with RFMobile. We have clients who conduct daily, weekly or monthly audits of offices and cubicles to update the locations of actively moving files. RFID cuts the time to audit by 80% (or more) over auditing with bar codes.

Mapping

RFID adds value to our QuickMaps™ interactive mapping. Staff can view the locations of one or more files that they need on a graphical map of your floorplan. This is ideal for large organizations on multiple floors. Staff are able to quickly retrieve the files they need, even when they don't know the people who have them.



RFID Zones

Files can be automatically tracked as they move from office-to-office and desk-to-desk using **RFZones™**. Imagine a 12-inch square pad above the ceiling tiles in your office or mounted under your desk. As files are delivered to your desk, their location is automatically read and updated in your Records Management system. Anyone needing the file can search and immediately see that you have it.

The real benefit of the RFZone is that tracking is completely passive – no direct action is required to record the movement of a file. All movements are recorded automatically, and that is what is required in many environments where staff will not participate in a bar code tracking system or touch folders to a short-range RFID tracking pad.

Integration

Organizations using FileTrail or a 3rd-party Records Management system can leverage Gen 2 RFID. FileTrail architected its RFID to be modular. Thus organization running common RM products can use FileTrail to seamlessly add RFID technology on to their existing systems. Organizations that do not have an RM solution can use FileTrail RFID with FileTrail's robust records management software. Either way, clients gain the benefits of RFID without the need to replace existing systems.

About FileTrail

FileTrail is the leading provider of web-based software for records management, retention, tracking and RFID solutions. See FileTrail at www.filetrail.com or contact FileTrail for more information.

Ask for our whitepapers:

- [Right_On_Track_With_RFID](#) published by ALA
- [Utilizing_RFID_In_The_Legal_Environment](#) published by ILTA.