

SEMINOLE COUNTY GOVERNMENT



Managing Fixed Assets through Radio Frequency Identification Device (RFID)

Best Practice in Public Procurement

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Managing Fixed Assets and Inventory through Radio Frequency Identification Device (RFID) system.

Background:

The Purchasing and Contracts Division, Seminole County Government, is responsible for all fixed assets management activities including the Board of County Commissioners, Supervisor of Elections, Tax Collector, Property Appraiser, Health Department and County/Circuit Judges Offices. The County establishes and maintains a current inventory of tangible personal property of over 9,600 items with a value of \$90 million (Fiscal Year 09/10) and ensures compliance with federal, state and local policy. Seminole County currently has registered over 130 locations sites throughout the County for inventory purposes.

The County is continuously encountering a diversity of challenges involving technology, administration, resources and management functions. The intricacy and value of tangible property has increased in recent years and as a result, staff was determined to look into ways to manage the program in a dynamic and proactive way, accommodating the current economic situation of budgetary constraints and staff shortfalls the County is facing.

As a result of the research, the County implemented a new system for managing the fixed assets inventory - a "Radio-frequency Identification (RFID)" typically referred as an RFID tag. Basically, it is a technology that enables the wireless transmission of electronic data through a small device that is applied to the asset for the purpose of identification and tracking using radio waves. The use of RFID system for the management of fixed assets is an innovative practice that utilizes technology to effectively conduct inventory functions.

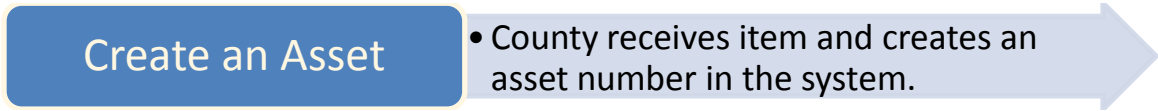
This innovative practice promotes savings to the County and supports efficiency and accuracy for the entire property administration process while adding value to the procurement processes. This technology provides the ability to identify and locate items and allows the County to have a more accurate picture of what it has and where items are located.

All fixed assets were physically identified with a RFID tag and this action accounted for a current and accurate inventory to initiate the new RFID system. These tags are read up to 20 feet away and the tags can be added or overwritten and the data stored within an RFID tag's microchip waits to be read. To accomplish the reading, staff takes a handheld reader to the location site to account for real-time count. The handheld is ideal for use by mobile workers and rolling stock inventory.



This device facilitates the inventory because staff walks through the room and the handheld picks up the reading from RFID that are not visible to the eye. Tasks that took hours can be done in a matter of minutes.

PROCESSES:



As an asset is received, details of the asset are entered into a database and assigned to RFID tag, which is encoded with a pre-encoded number. The tag is attached to the asset either permanently or with zip ties. Staff can inquire asset's position within the County's various departments and rooms because the RFID asset tracking system enables us to run automated inventory counts at any moment.



Manage Inventory

Building	Room	Asset Number	Description			
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Search Inventory"/>	<input type="button" value="Advanced Search"/>	<input type="button" value="Add Item"/>
L480	Purchasing	6070079	COPIER (PURCHASING)	<input type="button" value="Edit"/>	<input type="button" value="RFID"/>	<input type="button" value="Delete"/>
L480	Purchasing	00922	Fax Machine Purchasing	<input type="button" value="Edit"/>	<input type="button" value="RFID"/>	<input type="button" value="Delete"/>
L480	Purchasing	02133	Projector	<input type="button" value="Edit"/>	<input type="button" value="RFID"/>	<input type="button" value="Delete"/>
L480	Purchasing	780116	SEDAN 4 DR (PURCHASING)	<input type="button" value="Edit"/>	<input type="button" value="RFID"/>	<input type="button" value="Delete"/>
L480	Purchasing	2611	SMART BOARD PURCHASING	<input type="button" value="Edit"/>	<input type="button" value="RFID"/>	<input type="button" value="Delete"/>



Inventory Detail

Building	<input type="text" value="Purchasing"/>	Room	<input type="text" value="Purchasing"/>	Asset Number	<input type="text" value="780116"/>
Inventory Description	<input type="text" value="SEDAN 4 DR (PURCHASING)"/>			RFID Num	<input type="text" value="00000000000000000001"/>
Manufacturer	<input type="text" value="FORD"/>	Model	<input type="text" value="2008 FORD FOCUS SE"/>	Serial Number	<input type="text" value="1FAHP35N78W176241"/>
Asset Type	<input type="text" value="50"/>	Status	<input type="text" value="active"/>	Department	<input type="text" value="REQ# 40939"/>
Vendor	<input type="text" value="Duval Ford"/>	Price	<input type="text" value="11762.00"/>	Date Added	<input type="text" value="03/06/2010"/>
Custodian	<input type="text" value="19639"/>	Grant	<input type="text" value="43115"/>	Last Seen	<input type="text" value="03/23/2010"/>

Custom Fields

Check Number	<input type="text"/>	Purchase Order	<input type="text"/>	Custom 03	<input type="text"/>	Custom 04	<input type="text"/>	Custom 05	<input type="text"/>
Custom 06	<input type="text"/>	Custom 07	<input type="text"/>						

Notes:

Add Picture of the item

RFID • County associates a RFID to the item



The County uses these tags for rolling stock, tools ...

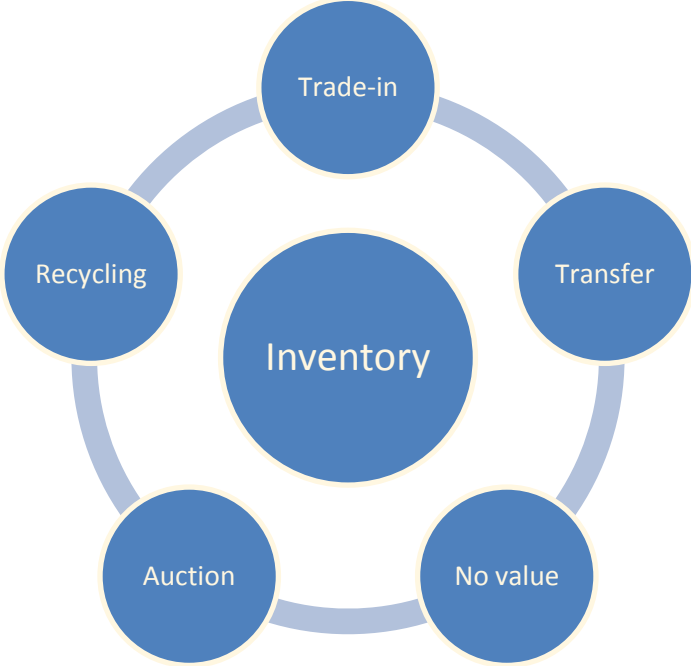


The County uses these tags for copiers, electronics, office product ...

The County uses a special zip-tie RFID tag on some items in the Public Safety Department. The RFID tags can tolerate high temperatures and extreme environmental conditions.

Inventory • County conducts annual inventory

Staff has the ability to conduct inventory of all fixed assets and equipment as well as process transfers, re-locate items, register an asset and make modifications to the asset information directly to the handheld device. The system operates with real-time with Wi-Fi connection; there is no need to upload information from the handheld into the computer.



Advantages of managing Fixed Assets and Inventory through Radio Frequency Identification Device (RFID) system:

- Instant inventory accurate count for valuable assets and equipment
- Reduction or even elimination of fraud and theft
- Significant reduction of days of inventory tracking
- Lower inventory management cost
- Real-time fixed assets and inventory information.
- Accurate information
- Significant cost savings for the County
- Increase in productivity and accountability

The County conducted the annual inventory for Fiscal Year 09/10 and the following data was documented to assist the County in comparing the two (2) systems, manually vs. electronically. The savings is calculated at approximately 34% and it is expected to increase as the County becomes more and more skilled and knowledgeable with the system.

Cost comparison:

Departments	Manual Annual Physical Inventory		RFID System	
	Approximately # of Hours to conduct annual inventory	Approximately Cost associated with annual inventory	Approximately # of Hours to conduct annual inventory	Approximately Cost associated with annual inventory
Public Works	65	\$3,858	22	\$1,306
Public Safety	80	\$3,473	27	\$1,172
Environmental Services	40	\$2,318	13	\$753
Board of County Commissioners and County Manager's Office	1.5	\$33	.5	\$11
Community Services	4	\$87	1.3	\$28
County Attorney's Office	1	\$22	.3	\$7
Leisure Services	45	\$2,520	15	\$840
Growth Management	8	\$274	3	\$103
Other Elected Officials - Locations	55	\$1,194	20	\$434
	\$13,779.00		\$4,654.00	

If the County experiences discrepancies after or during physical inventory, the system has the capability to reflect those discrepancies. Those items that were not accounted for during the inventory count will show in a location called "missing" and will remain

there until the Property Administrator takes further action. At that time, the custodial of the item(s) is notified and he or she will work with the Property Administrator to find the item(s) or to adjust inventory.

If an item is found in a different location than the one the item is registered in, Property Administrator can make the necessary adjustment to the inventory or re-locate the item accordingly.

The following is an article published on September 2010 regarding Seminole County and the use of RFID to track its inventory.

RFID Automates Seminole County Asset Tracking

Seminole County, Florida – Sept 21, 2010. Seminole County automates asset tracking process with SPT RFID web based application. For years Seminole County managed their assets using the standard manual process. Through research they found a variety of basic solutions including "standard barcode process". However, they chose the Silent Partner Technologies (SPT) RFID web asset tracking solution for it's ability to track assets in many ways that includes RFID, barcode and manual data entry. The implemented solution uses the short range UHF RFID PDA technology, which allows a user to go out into the field and count assets from many buildings, and then upload the data. However, they are also looking at potentially using UHF Portals so that "counts" of items are done automatically as items pass through these portals. Additionally, they planning to use long range technology with both fixed and PDA should the "need" arise in the future. Essentially buying one system which provides Seminole the County maximum flexibility for growth.

"Seminole County is changing their manual fixed assets inventory system to an automated RFID system. Silent Partners Technologies has provided great support during this process and are very responsive to the County's needs. They have worked with staff providing one-to-one training sessions and finding ways that will best suit the County. It has been a great experience working with Silent Partner Technologies" says, Betsy Cohen, Seminole County Purchasing Department–Procurement Supervisor.

Tags: [Fire department software](#), [RFID applications](#), [RFID asset tracking](#)

This entry was posted on Wednesday, September 22nd, 2010 at 9:42 am and is filed under [Articles](#), [News](#), [Success Stories](#). You can follow any responses to this entry through the [RSS 2.0](#) feed. Both comments and pings are currently closed.

In addition to the implementation of the RFID system, Seminole County automated the "Asset(s) Disposition forms" providing the Departments and Divisions the ability to submit requests on-line instead of paper. Previously, these forms were printed and manually transferred between departments and divisions and were subjected to loss, inaccuracy and inefficiency.

The electronic forms are intended to gather the same information but in a more accurate and effective fashion. The submission of the forms electronically cuts down the processing time for all parties involved. These forms provide a record of all transactions

related to an asset and substantiate the accountability and history of that record. The forms are saved in the County's network for later retrieval and modification, an element that is advantageous to the fixed assets management system.

The County's site was created to inform employees about fixed assets and to provide guidelines for the different processes dealing with County inventory.

The attached documents are screenshots of the automated site.

FIXED ASSETS SYSTEM

Property control entails tracking, compiling and maintaining an inventory of all tangible personal property with original cost or value of \$1,000.00 or more, with a normal life expectancy of one (1) year or more, which is not fixed in place, not part of a structure or facility and is practicable to identify by marking.

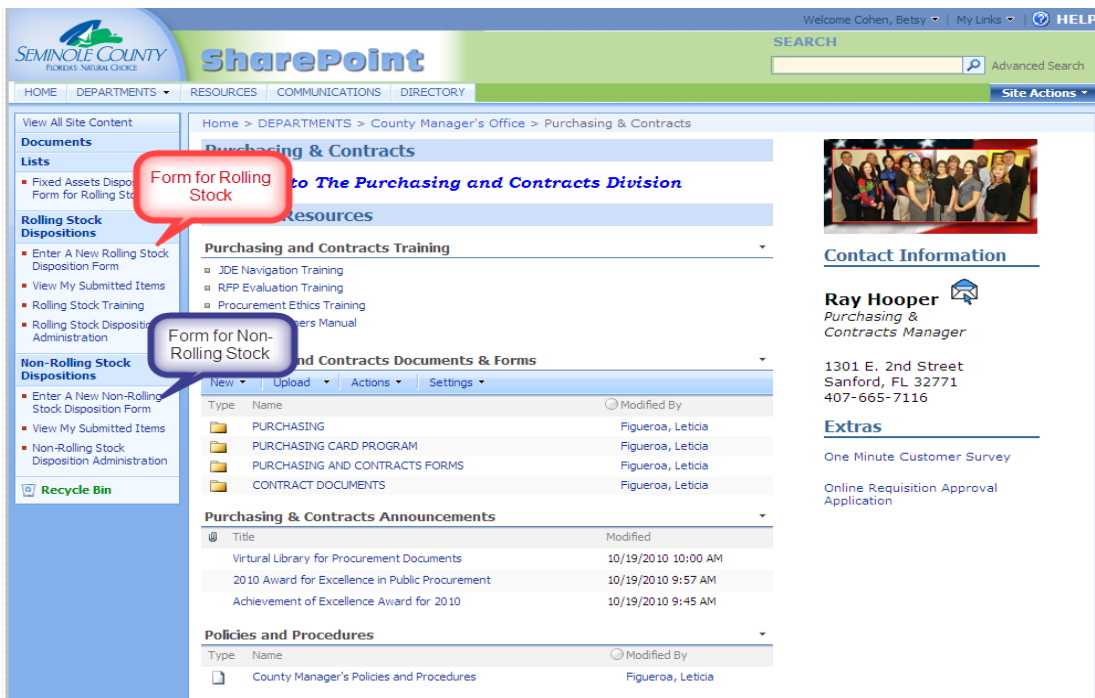
Purpose of the fixed assets system is to provide control and accountability over the County's assets and to gather and maintain the information needed for the preparation of County financial statements. The policies and procedures described below meet the Seminole County standards as described in the Administrative Code and Seminole County Manager Policies.

HELP CENTER



All County property that is obsolete, excess, or no longer needed by the owning Department/Division, to include vehicles, equipment, furniture, etc., are to be reported to the Purchasing and Contracts Division for disposition coordination and proper disposal.

Fixed Assets Disposition Forms are posted in SharePoint



SURPLUS

NEED TO SURPLUS AN ASSET? Fixed assets become surplus property when they are no longer needed in the department.

📄 **SURPLUSING A ROLLING STOCK ITEM:** [\(Link to form\)](#): **Rolling stock** comprises all the vehicles that move on a railway. It usually includes both powered and unpowered vehicles. However, the term is sometimes used to refer also to non-powered vehicles; specifically, excluding locomotives which may be referred to as running stock or motive power that are maintain by the County Fleet Division.

📄 **SURPLUSING AN ITEM OTHER THAN ROLLING STOCK:** [\(Link to form\)](#)

TRANSFER

NEED TO TRANSFER AN ASSET? Assets are transferred when they are permanently moved from one department to another. If the move is temporary, it is treated as an asset on loan to another department.

📄 **TRANSFERRING A ROLLING STOCK ITEM:** [\(Link to form\)](#): **Rolling stock** comprises all the vehicles that move on a railway. It usually includes both powered and unpowered vehicles. However, the term is sometimes used to refer also to non-powered vehicles; specifically, excluding locomotives which may be referred to as running stock or motive power that are maintain by the County Fleet Division.

📄 **TRANSFERRING AN ITEM OTHER THAN ROLLING STOCK:** [\(Link to form\)](#)

LOST/MISSING/THEFT

NEED TO REPORT A LOST/MISSING/THEFT OF A FIXED ASSET: Fixed assets are considered missing when an inventory is taken and assets on the fixed asset system are not found. This can occur because an asset is moved to another location, but the new location is not recorded on the system before inventory sheets are run OR the asset could be lost. This is different from an asset that is believed to be stolen.

📄 **REPORT LOST/MISSING/THEFT OF A ROLLING STOCK ITEM:** [\(Link to form\)](#): **Rolling stock** comprises all the vehicles that move on a railway. It usually includes both powered and unpowered vehicles. However, the term is sometimes used to refer also to non-powered vehicles; specifically, excluding locomotives which may be referred to as running stock or motive power that are maintain by the County Fleet Division.

📄 **REPORT LOST/MISSING/THEFT OF OTHER THAN ROLLING STOCK:** [\(Link to form\)](#)