

# NoxVault

## User Guide

Version 1.3.x

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# Introduction

Welcome to NoxVault. This manual covers the setup, installation, configuration, and use of the NoxVault RFID handheld asset tracking system.

## What is NoxVault?

NoxVault is a handheld inventory management system that utilizes Radio Frequency Identification (RFID) technology to account for large lists of assets quickly and easily. NoxVault functions much like a traditional barcode or manual inventory management system without all the manual scanning. RFID allows you to scan for items in a room at the rate of 100 items per second. Scan an entire shelf or room full of assets in moments instead of hours.

## What is RFID?

RFID stands for Radio Frequency Identification. RFID technology consists of microchips approximately the size of a grain of salt connected to an antenna and embedded into a label or tag. These RFID tags can be read and identified by RFID readers, hundreds at a time with no line of sight. This technology allows NoxVault to quickly scan an area for tagged items by pulling the trigger and waving the device in the direction of your items.

## Support Beyond This User Guide

If you are unable to answer any questions you have about NoxVault in this guide, you should call our offices at +1 (703) 343-1689. We are available from 9am EST to 6PM EST, Monday through Friday.

You can also contact us by email at [support@simplyrfid.com](mailto:support@simplyrfid.com), or visit our web site, [www.simplyrfid.com](http://www.simplyrfid.com)

NoxVault is a rapidly evolving application. Our list of features exists based on our customer feedback. If you have questions about how NoxVault can work for your application, please let us know!

# Installation

Your NoxVault handheld comes pre-installed and configured with the NoxVault software ready-to-go. Use this section of the guide only for upgrading your NoxVault software or after a factory reset.

## Install the .NET Compact Framework

NoxVault requires the Microsoft .NET Compact Framework version 3.5. The .Net Framework can be downloaded from Microsoft's web site, or you can contact SimplyRFiD by email at [support@simplyrfid.com](mailto:support@simplyrfid.com) to request the files for the correct version.

### **.Net Compact Framework Version 3.5 Windows CE Version for ARMV4 Processors.**

**Step 1.** Copy the NETCFv35.wce.armv4.cab file to your NoxVault handheld using the USB cable included with the device. To connect to your device see the, **Connecting to NoxVault Using ActiveSync** section of this guide.

**Step 2.** Once the file has been copied to the NoxVault handheld, browse to the file by tapping on the 'My Device' icon on the desktop. Double tap the NETCFv35.wce.armv4.cab file to install it.

**Step 3.** The installer will prompt you for a location to install the compact framework. Click the **OK** button to accept the default location and begin the installation. The installation will complete automatically.

## Install the NoxVault Software

A link to download the NoxVault software can be sent to you by requesting a copy from SimplyRFiD. Send an email to [support@simplyrfid.com](mailto:support@simplyrfid.com) for more information.

There is no .cab file or installer package for the NoxVault software. NoxVault files are copied directly to the '/Program Files' directory.

**Step 1.** Unzip the NoxVault.zip file to your desktop or your documents folder for easy access.

**Step 2.** Copy the entire NoxVault folder to the /Program Files directory on your NoxVault handheld. For more information on copying files to NoxVault, see the, **Connecting to NoxVault Using ActiveSync** section of this guide.

**Step 3.** Create a shortcut for the NoxVault software by browsing to the /Program Files/NoxVault directory on your handheld. Tap and hold the NoxVault.exe file and select **Copy**. Next, navigate back to the desktop of the handheld, tap and hold the stylus on the desktop and select **Paste Shortcut**.

## **Configure NoxVault Display Settings**

Once the .Net Framework and the NoxVault software has been installed, there are a few recommended settings that should be configured. These steps are optional but recommended for ease of use.

### **Hiding the Task-Bar**

Choosing to hide the task-bar will increase the screen area available for the NoxVault application. To hide the task bar when the NoxVault software is running, tap on the **Start** button on your NoxVault handheld. Select the **Settings** menu item, then tap on the **Taskbar and Start Menu Options** list item. Uncheck the 'Always on Top' menu option.

### **Disabling the WiFi Connection**

Normal use of the NoxVault handheld does not utilize the wireless connection built into the NoxVault hardware. If the wireless connection cannot find a wireless access point it will continue to search for wireless networks, needlessly draining the battery life. To disable the wireless connection, tap on the **Start** button, select the **Settings** menu item, then tap on the **Control Panel** list item. At the control panel, scroll down to the **Wireless** icon and double tap it. Switch the wireless radio button from On to Off.

### **Connecting NoxVault Using ActiveSync**

From time to time you may wish to connect your NoxVault handheld to your computer with a USB cable to share files between your PC and the handheld. To do this, you will need to download and install a copy of the latest version of Microsoft ActiveSync from Microsoft's website.

<http://www.microsoft.com/windowsmobile/en-us/help/synchronize/device-synch.msp>

The ActiveSync software will automatically run when you connect the NoxVault handheld to your PC with a USB cable. Once connected, you will be prompted to setup a partnership between your PC and NoxVault. This step is not required, you can cancel the partnership or continue it.

To access the contents of the NoxVault device, open up **My Computer** and double click on the **Mobile Device** icon.

## Inventory Management

To scan your inventory using NoxVault, tap the **Inventory** button on the home screen. You will be prompted to either select a location, scan a location, do a free scan or create a new location. Start with the New Location option. Tapping the New Location button will prompt you to enter a location name.

**Note:** If you have setup an RFID tag ID as a location, you may click the Scan Location button to scan for RFID tags. Once a tag associated with a location appears in view of NoxVault, you will be able to select that location by tapping on it. For more information on configuring an RFID tag as a location, see the **Modifying Item Detail** section of this guide.



Once you have specified your location name you will be brought to the Inventory screen. The inventory screen displays a live report of your inventory when you pull the trigger to scan for RFID tags.

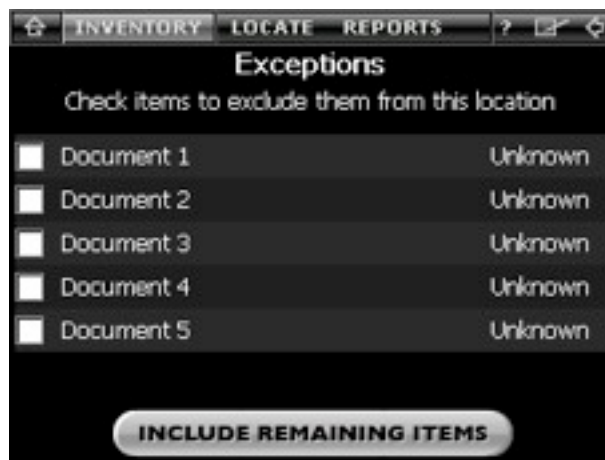


- **Expected Found.** These are the items found by the RFID reader. Tapping on this item will display a live list of all the items scanned by the RFID reader.
- **Missing.** These are the items programmed to the currently selected inventory that have not yet been found by the RFID reader. Tapping on the Missing item will display a

live list of all the items that were once recorded in inventory but have not yet been found during this scan.

- **Not Recognized.** Items that are not recognized are items that have never been seen by NoxVault yet. All items in your first inventory scan end up in the Not Recognized section.
- **Not Expected.** Items in the Not Expected category are items that NoxVault has seen in another location. When you finish scanning your inventory, NoxVault will prompt you to exclude or include these items.

After you have completely scanned your location for RFID tags you can tap the **Done Scanning** button to save your data. You will be prompted to select any items that may have been scanned by accident.



Tapping on the **Include Remaining Items** button will send you back to the home screen.

### Updating Inventory

After your inventory has been scanned you may scan any location again by tapping the **Inventory** button on the home screen and selecting your location in the location list. You will notice that the inventory mode starts with a numerical value in the **Missing** row. As you scan RFID tags the items will be removed from the missing row into the **Found** row. You can tap on either the Found or Missing rows to see a detailed list of items for each.

### Modifying Item Detail

Every RFID tagged item stored in the NoxVault handheld can have any amount of Item Detail saved to it. To modify an item's detail, click on the item in the Inventory mode, or Free Scan mode. By default, each item has the following fields:

- **Description.** This is the name that will be used to display the item in the inventory list or free scan mode.
- **RFID.** The RFID field is not editable, it displays the 24-digit ID encoded in the RFID tag.

- **Barcode.** The barcode field can be modified by tapping the **Scan Barcode** button. This will enable the barcode scanner. The barcode scanner will be disabled as soon as NoxVault scans a barcode.
- **More Details.** This link will allow you to view any extra detail associated with the Item. All columns created in the .CSV file will be displayed on this detail screen. For more information on the .CSV file see the **Working With NoxVault.csv** section of this guide.
- **Use this as a new location.** Tapping this link will allow you to create a new location with the selected RFID tag as an identifier. You will be able to easily recall the location by clicking the **Scan Location** button on the inventory screen.

## Free Scan Mode

The Free Scan mode allows you to scan an area for RFID tags without updating the inventory spreadsheet. Free Scan is helpful for verifying the contents of RFID tags or testing read ranges.

To operate the Free Scan, click on the **Inventory** button on the Home screen, then tap the **Free Scan** button on the inventory screen. Pull the trigger to begin scanning tags.

RFID tags will show up only one time for each tag. If you are testing read range, you may wish to clear the results by tapping the **Clear** button to start the free scan over.

In the Free Scan mode you are still able to tap on any RFID tag to modify its item details. See the **Modifying Item Detail** section of this guide for more information.

## Locating RFID Tags

NoxVault has a built-in location feature that functions like a metal detector to help you find the location of a specific RFID tag. To locate a tag, tap the **Locate** button on the home screen.

You will be prompted to type the ID, or Description of the tag you wish to locate. Nox will search its own database for the value you specify and display a list of all found items on the screen. Pull the trigger to begin scanning for RFID tags.

Once NoxVault can read any of the RFID tags displayed on the search results list, it will start to display a set of green bars on the right side of the screen, next to the item it has found. The more bars NoxVault displays, the closer the item.

## Working With NoxVault.csv

NoxVault.csv contains all of the RFID tag data, item detail, and location information stored by NoxVault. This file is in the root directory of your handheld. For information about connecting your handheld to your PC, see the **Connecting NoxVault Using ActiveSync** section of this guide. Once your handheld is connected to your computer, you can copy the **NoxVault.csv** file from the root directory of the handheld to your

desktop. This file can be opened with Notepad or Microsoft Excel. Each NoxVault.csv file will contain the following fields:

- **RFID Number.** This is the 24-digit tag ID associated with the item. Every item must be associated with an RFID number.
- **Name.** This is the human readable name or description of an item. This value will be displayed on the Inventory or Free Scan pages if specified.
- **Location.** The location specifies the name of the location the item was last seen.
- **Last.** This field contains a date and time of the last time this item was scanned on the Inventory screen.
- **State.** The State field is used by NoxVault to record the items current location status. A state will be either Unknown, Found, or Missing. Found items were seen by NoxVault during the last inventory scan. Missing items were not found during the last inventory scan.
- **StateLast.** The StateLast is the date and time of the last time this item's State value was changed.
- **Barcode.** The Barcode field is the value stored in the barcode field of the NoxVault handheld.

Any additional columns added to this file will be displayed on the More Detail page of the Item Detail screen on the NoxVault handheld. For more information on the Item Detail page, see the **Modifying Item Detail** section of this guide.