MobileTrak Lite
for Windows

RF Code™
discover. track. monitor.

User Manual

Contents

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Copyright Statement

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Introduction

MobileTrak® Lite is a Windows-based demonstration application designed to run on mobile devices, such as a BlackBerry, a device running the Windows Mobile operating system, or on a PC running Windows. MobileTrak Lite is designed to connect to an RF Code mobile or fixed reader. This connection allows MobileTrak Lite to receive tag information acquired from the M200 Reader or M220 Mobile Reader allowing the application user to locate specific assets or inventory assets which have been "tagged" with an RF Code active tag.

MobileTrak Lite has several configuration options for searching and inventory tracking. The user has the ability to search for asset(s), set specific ranges to search within, and email or export asset information to a host computer in XML format.

Requirements

MobileTrak Lite supports the following:

- Windows XP, SP2 or higher
- Windows Vista

Features

Some of the features included with the MobileTrak Lite are:

- Graphically displays signal strength to reveal the proximity of the asset tag
- Audible indicator when tag is found
- Import XML Configuration File consisting of Tag IDs and Group Codes
- Export information gathered from Tag search into XML File
- Motion, Tamper, Panic, and Low Battery icon indicators for each tag
- Capable of searching up to 25 tags
- Ability to set the mobile reader search range to one of 8 preset modes
- Ability to search for a specific asset tag by manually inputting TagID and Group Code

Installation
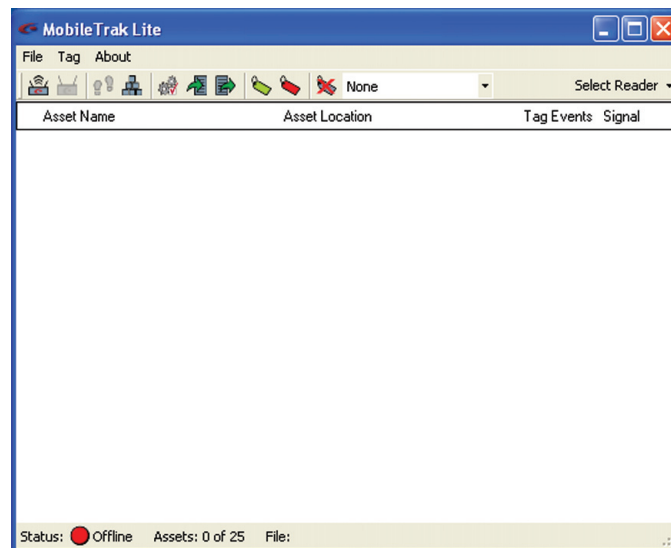
Install MobileTrak Lite from the RF Code Reader Utilities and SDK CD. If the CD autorun program does not launch the main menu, you can use Windows explorer to browse to the CD drive and double-click on the autorun file to bring up the menu. Select the appropriate menu (MobileTrak Lite) and follow the prompts in the Setup Wizard to install the Windows version of the MobileTrak Lite application.

Launching Application

After installing MobileTrak Lite, select and open the MobileTrak Lite application by going to **Start > Programs > RF Code > MobileTrak Lite**. The initial screen is shown in Figure 1.

Figure 1 MobileTrak Lite Initial Screen

Main Menu Options

The MobileTrak Lite application features the several Main Menu Options. They are explained in detail below:

Start Reader

This option is used to initialize the reader that you are using so that you can gather information about the assets that you have tagged.

To Start a Reader you must first make sure that a reader has been installed on your network or computer. For instructions on installing a reader please refer to the M220 Mobile Reader User Manual located on the RF Code Reader Utilities and SDK CD.

Once you have installed a reader you may then select which reader you are going to connect to in the drop down menu on the far right of the main menu. If you are using a reader connected locally (as a serial port, USB or *Bluetooth* connection) select the COM port for this reader. If you are using a reader connected through you network, you may have to first add the IP address of the reader for MobileTrak Lite to recognize it. Please refer to the **Add IP Reader** section of this document to do this.

Once you have the reader selected that you want to connect to, you may start the reader. To start the reader, click on **File > Start Reader** or click on the button.

Stop Reader

This option is used to stop the reader that you are using from gathering information about the assets that you have tagged. This feature would be used once you have located the tagged asset(s) that you are looking for and want to export the related information.
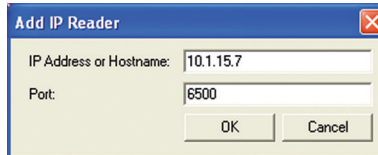
To Stop a Reader, make sure the reader you want to Stop is selected in the right-hand drop down list. Then click on **File > Stop Reader** or click on the ![button] button.

Add IP Reader

This option is used to add a reader that has been installed on your network so that you can connect to it to receive information about your tagged asset(s).

To Add an IP Reader, click on **File > Add IP Reader**. A window will pop-up (Figure 2) where you will need to input the IP address and port number of the reader that you are going to add and Click OK to continue. Now, you will notice that you can select this IP address in the Select Reader drop down list on the right-hand side of the screen. You can now start the reader to obtain information about your tagged asset(s).
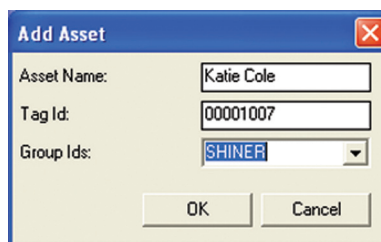
Figure 2 Add IP Reader

Add Asset

This option is used to add the identification information for an asset that you have tagged so that asset can be monitored and/or located with the software.

To Add an Asset, click **File > Add Asset.** A window will pop-up (Figure 3) where you will need to input the asset name, tag ID and group ID of the tag that you are going to add and Click OK to continue. The new asset will now appear in the main screen.

Figure 3 Add Asset

Asset Mode

There are two different Asset Modes that you can use to monitor tags in this software. They are:

- **Track**: This mode monitors tagged assets that you have set up using a configuration that has been saved and imported (See Import/Export Configuration section of this document). This feature can be accessed by clicking on **File > Asset Mode > Track** or by clicking on the [button icon] button.

- **Inventory**: This mode will monitor any assets that have been tagged that are in the range of the reader you have selected for the first 25 tags the RF Code reader discovers. This is useful when you do not know in advance what tags are located in a specific area. This feature can be accessed by clicking on **File > Asset Mode > Inventory** or by clicking on the [button icon] button.

> **Note** When inventorying assets you can choose to delete a tag. This will reduce the number of tags discovered by one allowing the application to discover new tags in inventory mode. Deleted tags are not rediscovered unless the application is restarted.

When viewing assets in either Track or Inventory mode, each found tag is identified by its TagID and a signal strength indicator that visually denotes the proximity of the tag. Generally, stronger signals indicate the tag is closer to you and a weak signal means the tag is farther away. Assets that are utilizing the A700 Room Locator device and IR tags are indicated under the Asset Location section and are identified by the location ID assigned to them. Also, various state indicator icons may appear with an asset tag as shown in Figure 4. These icons indicate the following:

[icon] Motion icon indicates that asset is moving or being relocated.

[icon] Tamper icon indicates that tag has been removed from asset.

[icon] Panic icon indicates that panic button has been activated on tag.

[icon] Low battery icon indicates that the tag's battery is low and should be replaced.

[icon] [icon] Dry contact icons indicate the current dry contact tag sensor is either open or closed.

[icon] Sensor low battery icon indicates that tag's sensor battery is low and should be replaced.

Figure 4 Indicator Icons

Options

This feature allows you to customize global aspects of the MobileTrak Lite software (Figure 5). These aspects are:
- • **Range Settings**: This option allows you to change the read range of the reader that you are connected to. The range has various settings, 1 through 8 with 1 being the minimum read range (less than 10 meters) and 8 being the maximum read range (70-100 meters, depending on deployment conditions).
- • **Sound**: The sound can be set to emit on a beacon from the tag, on an alert from the tag, or can be turned off.
- • **Label**: This option allows you to change the label of the tagged asset to either its tag ID or its asset name.
- • **Sort By**: This option allows you to sort the tagged assets by zone, time, signal strength, or by motion, tamper, panic or low battery alerts. You can also utilize the drop down list on the main screen of the software to access the Sort By feature.
- • **Color**: This option allows you to change the color that displays the signal strength of the beacon from the tagged asset to either a red, blue, or green color.
- • **Units**: This option allows you to change the temperature unit of measurement that displays in MobileTrak Lite to either Fahrenheit or Celsius.

The options feature is accessed by clicking on **File > Options** or by clicking on the 🔧 button.

Figure 5 Apply Global Options
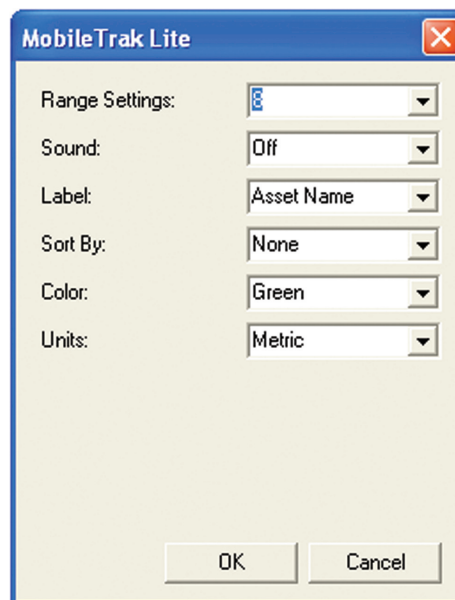
Import Configuration

This option allows you to import a configuration of tagged assets that has been outlined in an XML file. To assist you in the creation of a configuration XML file, a support form is available at the following URL:

http://www.rfcode.com/mtlcfg

Once you have completed this form, it will be emailed to you at the address specified.

To manually generate a configuration file, you can utilize the sample_mobiletrak.xml file that is located on the CD or create an XML similar to the example provided below. Make sure to populate with the Tag IDs, related group codes, and Zones, etc. that you are planning to monitor with the MobileTrak Lite software.

```
<mobiletrak version="1.0">
      <assets>
            <asset name="Gas Tank" desc="Generic Gas Tank">
                  <tag id="00000059" taggroupid="MTGPLV"/>
            </asset>
            <asset name="Laptop 1" desc="Generic Laptop">
                  <tag id="00000001" taggroupid="RFCLOC"/>
            </asset>
            <asset name="Laptop 2" desc="Generic Laptop">
                  <tag id="00000002" taggroupid="RFCLOC"/>
            </asset>
            <asset name="Laptop 3" desc="Generic Laptop">
                  <tag id="00000003" taggroupid="RFCLOC"/>
            </asset>
            <asset name="Laptop 4" desc="Generic Laptop">
                  <tag id="00000004" taggroupid="RFCLOC"/>
            </asset>
            <asset name="Laptop 5" desc="Generic Laptop">
                  <tag id="00000005" taggroupid="RFCLOC"/>
            </asset>
            <asset name="Freezer 2" desc="Generic Freezer">
                  <tag id="00000098" taggroupid="HUMRCK"/>
            </asset>
            <asset name="Freezer" desc="Generic Freezer">
                  <tag id="00000018" taggroupid="TMPRCK"/>
            </asset>
            <asset name="Smoke Alarm" desc="Generic Smoke Alarm">
                  <tag id="00000034" taggroupid="RFCDRY"/>
            </asset>
            <asset name="Door" desc="East Entrance">
                  <tag id="00000104" taggroupid="RFCDOR"/>
            </asset>
      </assets>
      <zones>
            <zone id="064" name="Engineering" roomlocatorid="064"/>
            <zone id="002" name="Finance" roomlocatorid="101"/>
      </zones>
      <taggroups readerfamily="M">
            <taggroup id="MTGPLV" treatcode="04E" family="RFCode"/>
            <taggroup id="HUMRCK" treatcode="04F" family="RFCode"/>
            <taggroup id="RFCDRY" treatcode="04I" family="RFCode"/>
            <taggroup id="TMPRCK" treatcode="04D" family="RFCode"/>
            <taggroup id="RFCDOR" treatcode="04C" family="RFCode"/>
            <taggroup id="RFCLOC" treatcode="04A" family="RFCode"/>
      </taggroups>
</mobiletrak>
```

Figure 6 Group ID, Tag ID, and Treatment Code Location

Group Code   Tag ID   Treatment Code

All RF Code tags are defined as being members of a specific group, and have a unique tag ID number within that group. When an RF Code reader is configured, it can be supplied with up to 8 group code IDs and a corresponding treatment code for each group code. The treatment code instructs the reader how to interpret the payload data for each tag event within that group code. RF Code tags are smart and have the ability to transmit various types of data within its radio frequency beacon such as indicators for motion, panic, tamper, infrared location, and low battery.

The following is a list of RF Code Group Codes and their corresponding tag Treatment Codes. Most RF Code tags utilize Treatment Code 02 or 04.

Treatment Code 02:
  • TRTTWO
  • INTJDS
  • RFCMII

Treatment Code 04:
  • RFCLOC
  • AHSAAA
  • RFCSEC
  • LOCATE
  • RFCBDG
  • TMPRCK
  • RFCDAA
  • IMHERE
  • RFCRCK
  • HUMRCK
  • RCKDRY
  • MTGPLV
  • RCKDOR

The list above is a compilation of the most current codes at the time of publication, however, a support page with the most updated list of group/treatment codes is available to help you determine your specific Group Code and Treatment Code:

http://www.rfcode.com/codes

Contact RF Code support if you have questions about the usage of group codes and treatment codes.

512.439.2200 (main), 877.969.2828 (toll-free), support@rfcode.com, or http://www.rfcode.com/support

To Import a configuration, click on **File > Import Configuration** or click on the ![icon] button.

Export Configuration

This option allows you to save found tag data as a configuration which is exported as an XML file. To export a configuration, click on **File > Export Configuration** or click on the   button.

⚠️ Make sure that the reader has been stopped or the configuration format that you wish to export may change because the reader will continue to read the tag beacons and may alter your configuration.

A save prompt will appear (Figure 7). Enter a file name and choose a location to save the XML file.

The export data includes found and not found tag data. When the "Track Assets" mode is used to search for tags, the export command will include results for all assets defined in the configuration regardless if the reader received a beacon from a specified tag. In the "Inventory Assets" mode, the results will only be from tags detected by the reader.

**Figure 7 Export Tag Data to XML File**
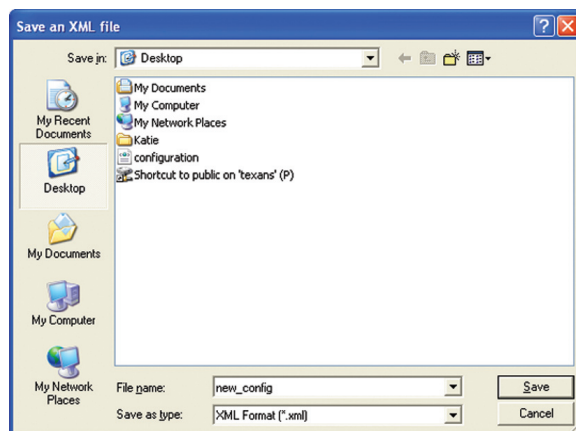
TIP You can use the new found inventory as a new configuration to import in MobileTrak Lite..

Edit Configuration

This option allows you to compose or edit a configuration. To access this option click on **File > Edit Configuration.**

The Edit Configuration options will appear (Figure 8).

Figure 8 Edit Configuration Screen - Group Codes Tab
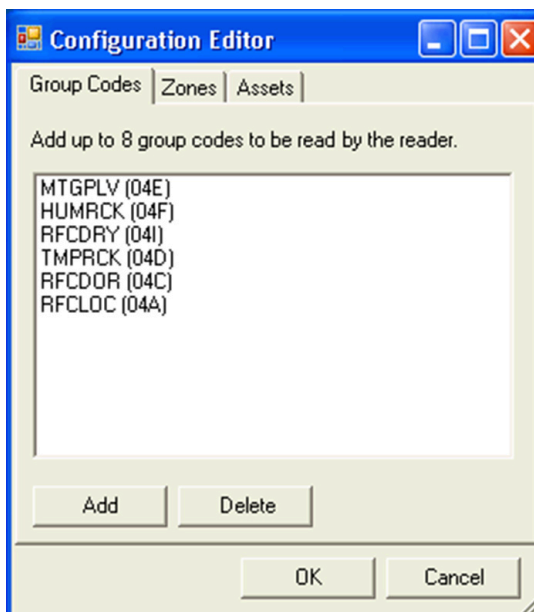
There are three options within the Edit Configuration task: Group Codes, Zones and Assets. Within the Group Codes tab, up to 8 different group codes can be entered. To enter a group code, click **Add** and a screen appears to input the Group and Treatment Code (please refer to the Import Configuration section of this document for a description of the use of Group and Treatment codes). Click **OK**. The new Group Code will now appear in the Group Codes list. To delete a Group Code, select the Group Code in the list and click **Delete**.

To enter a Zone, select the Zones tab and click **Add**. A screen appears to input the Zone and the IR Locator ID that will be associated with that Zone (Please refer to the A750 IR Locator User Manual for more information about using IR Locator IDs). Enter the desired Zone Name and IR Locator ID and click **OK**. The new Zone will now appear in the Zones list. To delete a Zone, select the Zone in the list and click **Delete**.

To enter an asset, select the Assets tab and click **Add**. Enter the Asset Name, Description, Tag Id and select a Group Id and click **OK**. The new Asset will now appear in the Assets list. To delete an Asset, highlight the Asset in the list and click **Delete**.

Enable All

This option allows you to "turn on" all of the tagged assets that have been specified in the configuration file for the Track mode and "turn on" all of the found tagged assets in the Inventory Mode.

To Enable All tagged assets, click **File > Enable All** or click on the   button.

Disable All

This option allows you to "turn off" all of the tagged assets that have been specified in the configuration file for the Track mode and "turn off" all of the found tagged assets in the Inventory Mode.

To Disable All tagged assets, click **File > Disable All** or click on the   button.

Delete All

This option allows you to delete all of the tagged assets that have been specified in the configuration file for the Track mode or all of the found tagged assets in the Inventory Mode.

To Delete All tagged assets, click **File > Delete All** or click on the   button.

Reader Diagnostic

This feature indicates the noise level present within the immediate vicinity of the RF Code Reader that the user has connected to. This feature can be accessed by tapping **File > Reader Diagnostics** (Figure 9).

Figure 9 Diagnostic Screen
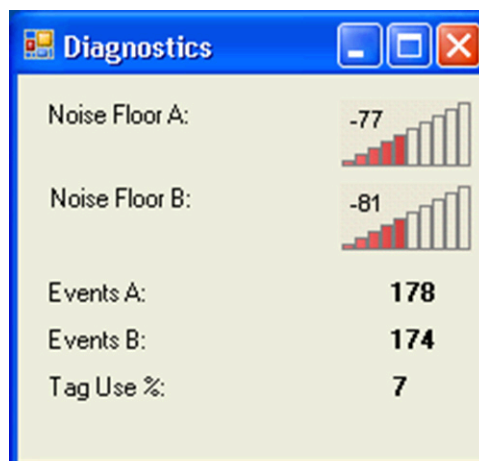
Tag Options

The MobileTrak Lite application features the several Tag Options. They are explained in detail below:

Details

This feature allows you to obtain specific details for a selected tagged asset (Figure 11). It is accessed by clicking on **Tag > Details** or right-clicking on a selected tag and selecting "Details" from the menu as shown in Figure 10.

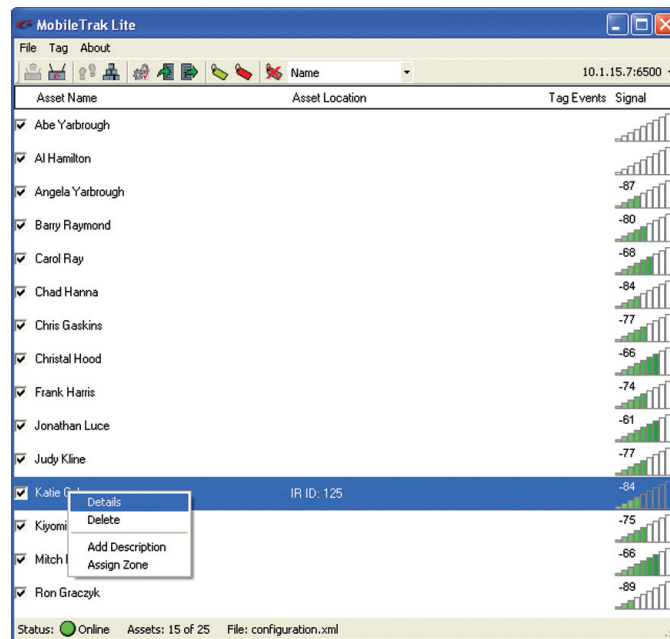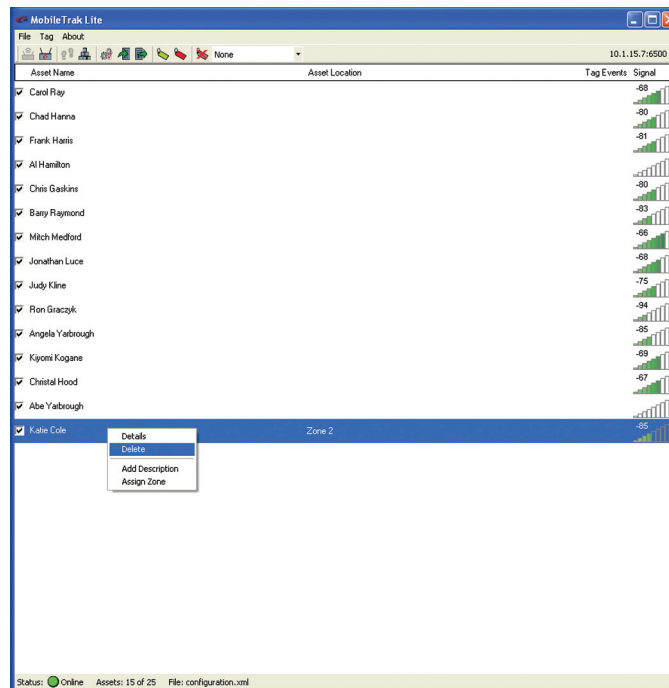**Figure 10 Select Tagged Asset Details**

Figure 11 Asset Details

Delete

This feature allows you to delete a selected tagged asset. It is performed by selecting the asset you would like to delete, and clicking on **Tag > Delete** or right-clicking on a selected tag and selecting "Delete" from the menu as shown in Figure 12.

Figure 12 Delete Tagged Asset

Add Description

This feature allows you to add or change a descriptions of a selected tagged asset. This is performed by selecting the asset that you would like to add a description to and clicking on **Tag > Add Description** or right-clicking on a selected tag and selecting "Add Description" from the menu as shown in Figure 13.

Figure 13 Selecting Add Description for Tagged Asset

Assign Zone

This feature allows you to assign a zone to a tagged asset. With this feature you have the option to assign a previously established zone or to create a new one (Figure 15). This is performed by selecting the asset that you would like to add a description to and clicking on **Tag > Assign Zone** or right-clicking on a selected tag and selecting "Assign Zone" from the menu as shown in Figure 14.
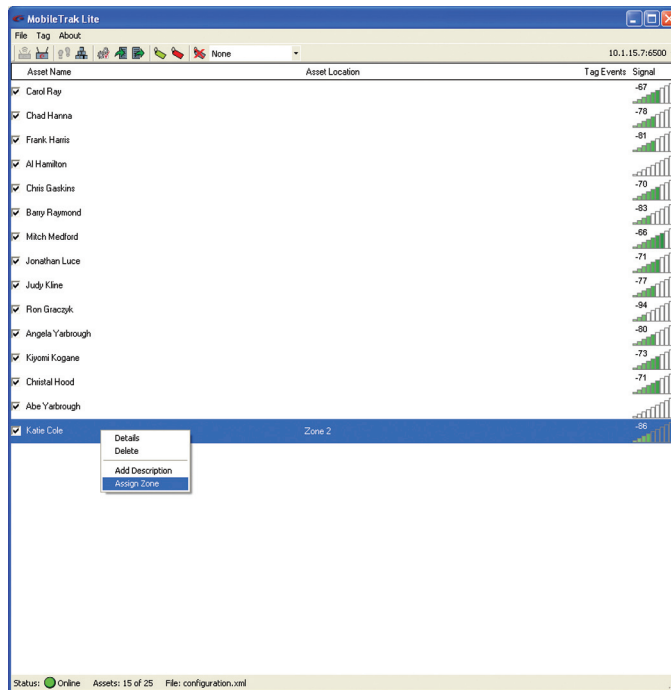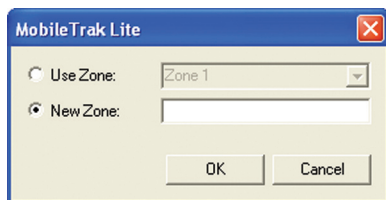
Figure 14 Assign Zone to Select Tagged Asset

Figure 15 Assign Zone or Create New Zone

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RF Code warrants its products to be free from defects in materials and workmanship for a period of 1 year (12 months) for hardware and software from the date of purchase from RF Code. Its obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. This warranty does not apply to equipment that has been damaged by accident, negligence, or misapplication or has been altered or modified in any way. This warranty applies only to the original purchaser (end-user) and is not transferable.

Standard Warranty Limitations

Except as provided herein, the entire liability of RF Code and its suppliers under this limited warranty will be that RF Code will use reasonable efforts to repair or replace, without charge, all defective Products returned to RF Code by Customer, all as more particularly described in the End User Warranty. Except for the express warranties STATED HEREIN, RF Code makes no other representations or warranties and RF Code hereby disclaims, all other warranties, express, implied, statutory, or otherwise, including without limitation, any warranty of merchantability, non-infringement of third party intellectual property rights, fitness for a particular purpose, performance, satisfactory quality, or arising from a course of dealing, usage or trade practice.

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For in-warranty service, customers have several options. Customers having difficulty with RF Code products should attempt to solve those problems through RF Code's Technical Support Problem Escalation Process:

First, contact the RF Code representative or other distributor from whom the RF Code product was purchased for information on how to obtain local support.
Second, contact the RF Code Customer Support via e-mail.
Third, contact the RF Code Customer Support via the Support Line.

For product returns, the support engineer will give you a return material authorization (RMA) number. No returns will be accepted without an RMA number. If the warranty expired, there is a charge for repair or replacement per RF Code's out-of-warranty policy. For full details of the RF Code RMA policy, please review the "RF Code Warranty, RMA, and Extended Warranty Policy" document.

RF Code Customer Support

RF Code Customer Support gives entitled customers and partners the ability to contact RF Code about installation and usage-related questions as well as make defect inquiries about eligible products that are covered under RF Code warranty agreements. A team of technical specialists can be contacted electronically or via phone.

The Support Line is available to provide General Support during normal business hours: Monday through Friday, 8:00am to 5:00pm Central time, excluding national holidays.

E-mail: support@rfcode.com
Support form: http://www.rfcode.com
Voice: 512.439.2244 or toll-free at 866.830.4578