

Video Series for RFTrack Inventory System

Welcome to the RFTrack Support Portal. To access the video series use this link:

<https://rftrack.zendesk.com/verification/email/D5IsrwJVDtufGS5glpjbnp8e8fsbxf1>

Use property.rftrack@admin.utah.edu as the email and 'rfid1' as the password.

Click on 'Videos and Tutorials', which allows you to click on the videos that you would like to get more information and training on.

Virtual Tag Analysis Videos

- [VIDEO 1: Virtual Tag Analysis Orientation Video \(watch this first\)](#) -time: 21:41
This video demonstrates:
 - Tag testing preparation (1:49)
 - Handheld antenna comparison-circular & linear (3:07)
 - Tag types comparison-metal & nonmetal types (6:36)
 - Basic testing principles (12:17)
 - Actual testing demonstration (17:17)
- [VIDEO 2: Zebra RFID Handheld Basics Video](#) -time: 03:34
This video demonstrates basic Zebra RFID handheld concepts such as charging, turning on, shutting down, rebooting, battery swap, basic settings, etc.
- [VIDEO 3: RFTrack Mobile Basics Video](#) -time: 03:57
This video demonstrates the basic screen and settings required for testing tags.
- [VIDEO 4: Laptop Testing Video](#) -time: 09:04
This video demonstrates how to test passive RFID tags on a laptop.
- WHITE PAPER: Passive RFID Tag Selection and Placement
See attached.
- WHITE PAPER: Passive RFID Performance Factors
See attached.

RFTrack Mobile Videos

- [RFTrack Mobile for Android- Offline Mode](#) -time: 05:21
- [RFTrack Mobile for Android - Asset Inventory](#) -time: 07:27
- [RFTrack Mobile for Android Asset Transfer Feature](#) -time: 02:12
- [RFTrack Mobile for Android Handheld Power Levels](#) -time: 03:05

RFTrack Web Application

- [Check In And Check Out Training Video](#) -time: 07:01
- [Configuring Asset Fields To Be Required In RFTrack](#) -time: 02:35
- [RFTrack Web Application Tutorial On Verifying Recent Asset Imports](#) -time: 01:14
- [Asset Maintenance Video Tutorial - Session 5 - Running and Exporting Reports](#) -time: 02:20
- [Asset Maintenance Video Tutorial - Session 4 - Adding Images To Assets](#) -time: 05:08

RFTrack Lite (Android)

- [RFTrack Lite App Video Tutorial](#) –time: 12:19

This video demonstrates:

- Logging in (1:41)
- Assign Asset Tag (2:38)
- Asset Lookup (6:31)
- Upload Image (8:44)
- Settings (10:52)
- About (11:24)

Webinars

- [How To Get The Most Out Of RFTrack Webinar](#) –time: 53:43
- [RFTrack Mobile for Android Webinar](#) –time: 29:02

PASSIVE RFID TAG SELECTION AND PLACEMENT

There are two main types of passive RFID tags that can be used:

- RFID Labels
- Metal-mount RFID Tags

RFID LABELS

RFID labels are typically very thin and consist of an RFID inlay (the chip and antenna) embedded on the back of a label. These tags will generally perform well on surfaces such as plastic, wood, and glass as long as there isn't any metal near the tag. If there is metal within a few inches of the RFID label, you will probably experience interference and the read range of the tag will be reduced. The closer the tag is to metal, the worse it will perform. If the tag is within a half inch or less of metal, the tag may become unreadable. A great example is the plastic lid of a laptop. Even though the material is plastic, there is metal right below the thin plastic housing. Placing an RFID label on a plastic laptop lid will probably reduce the range of the tag to a few inches or less because of the proximity to metal.

- Metal interferes with RFID labels
- RFID labels perform better the further away they are from metal
- When RFID labels are placed too close to metal, they may not be readable

METAL-MOUNT RFID TAGS

Metal-mount RFID tags, also referred to as on-metal RFID tags, are specifically designed to be placed on or near metal. These tags are typically thicker (1/16th of an inch or more) than RFID labels, because they usually contain shielding material and/or a metallic back plane. If the tag is going to be attached to any kind of metal, or within about half inch or so of metal, a metal-mount tag will be needed. Different types of metal will affect the read range. Generally, metals like stainless steel will do much better than aluminum and composite metals. The closer these tags are to metal the better they will perform.

- Metal-mount RFID tags perform better the closer they are to metal
- Different types of metals will affect the performance of the tag
- Ferrous metals perform better than metals like aluminum & composite metals

TESTING

If you aren't sure what type of tag to use, temporarily tape different types of tags to the asset to see which one performs better using the Tag Reader and Proximity Locator screens. Try the tag on different areas to see where it performs the best before permanently attaching to the asset.

RFID ADVANTAGES

- Up to 20 times faster than manual or barcode processes
- Reads dozens of tags simultaneously
- Read ranges (inches to hundreds of feet)
- Doesn't require a line-of-sight to scan tags

ABOUT inLogic

inLogic provides RFID asset tracking solutions that help clients save time, reduce operating costs, and improve accuracy.

www.inlogic.com



FACTORS THAT AFFECT PASSIVE RFID PERFORMANCE

The performance, including the read range, read rates, interference, etc., of passive RFID tags can vary significantly based on a number of factors. The primary factors that affect performance are the following:

THE TYPE OF TAG

Make sure you select the appropriate type of RFID tag (RFID label or metal-mount RFID tag) depending upon the type of asset. Please refer to our “Passive RFID Tag Selection and Placement” white paper for more information.

THE SIZE OF THE TAG

Generally larger tags will provide more range than smaller tags, because the larger tags typically have larger antennas that allow the ID to be reflected at greater distances back to the reader.

THE ORIENTATION OF THE TAG

The orientation (vertical, horizontal, perpendicular, upright, laying flat, etc.) and angle of the tag in relation to the reader will affect the read range. A tag that is upright and facing the reader’s antenna dead-on will typically provide the best range. If the reader’s antenna is at a 45 degree angle from where the tag is facing, the read-range will probably drop. Generally, the lower the angle, the lower the read range will be.

THE TYPE OF READER/ANTENNA

There are different types of readers (fixed and handheld) with different types of antennas (linear and circular).

THE ENVIRONMENT

The environment can affect the read-range.

- In a data center full of metal cabinets, a lot of reflection will occur which can sometimes increase the read range.
- An enclosed metal cabinet will significantly reduce or prevent assets inside from being read.
- Scanning tags outdoors in rain or snow can reduce the read range, because moisture absorbs radio waves.
- People between the reader and tagged assets can reduce the range, because the human body is almost all water and absorbs radio waves.

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