

GETTING STARTED WITH V-TAG Command Center

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Setup Overview

To get properly set up with the V-TAG Command Center, some steps are needed within both AssetWorx and the V-TAG Command Center. Below is an overview of the steps which will be described in more detail later in this document. Navigation between AssetWorx and the V-Tag Command Center can be accomplished by clicking the View menu.

AssetWorx Setup Steps

1. Make sure that the AssetWorx web application and the Alarm Monitoring Service has been installed.
2. Create Assets – Create the assets that you will want to track with V-TAGs, setting their V-TAG ID field. .
3. Create Locations – Create a location record for every location that you will want to monitor. There will typically be one location assigned to each fixed tag.
4. Gateway Setup – First, setup the V-Tag Gateway. To do this, follow the V-Tag Gateway Setup document. Next, under the Reader tab, create a V-TAG Gateway for each physical Gateway that you set up. Be sure to set the IP Address under the Network tab.
5. Monitoring Device Connectivity – Check Network Management to make sure that the Alarm Monitoring Service is actively connected to your Gateways. Connected Gateways are represented by green lines while disconnected ones are represented by red lines.

V-TAG Command Center Setup Steps

1. Manage Sites – Create the Sites and Areas that will be used as your maps with this screen.
2. Manage Tags – Use this screen to set your Fixed Asset tags, view V-Tag Asset locations, as well as send map based commands to your V-TAG network.

System Overview

V-TAG is an RFID tag with a set of sensors for temperature, shock and battery level. In contrast to other systems where each tag is polled by a central gateway, the V-TAG tag relays messages from other V-TAG tags which aids with tag read range and communications reliability. See Figure 1-1.

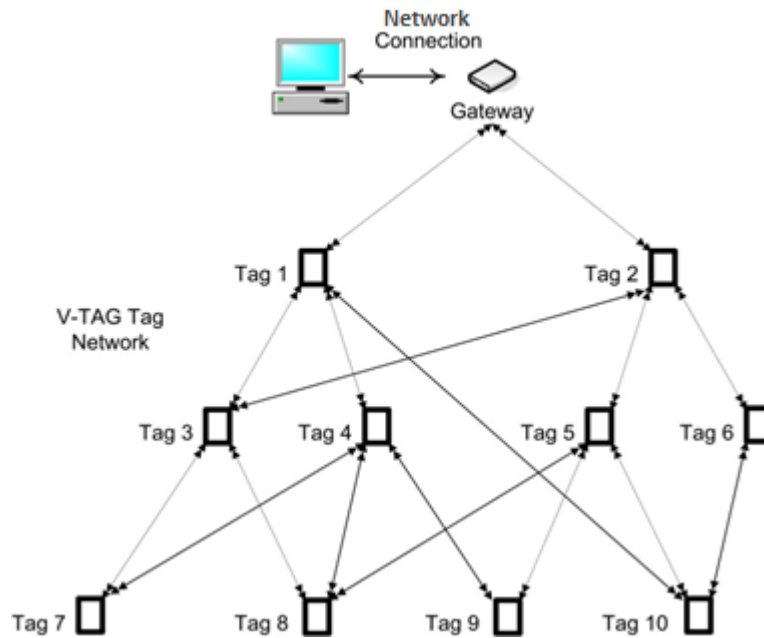


Figure 1-1 V-TAG System Overview

V-TAG tags provide hourly sensor reports for temperature, shock and battery level with immediate alarms if a sensor exceeds its threshold value.

The V-TAG Command Center is designed to allow the complete management of your V-TAG network. The V-TAG Command Center application lets you upload your own maps which are used to overlay the location of all of the assets in your V-TAG network. In addition, the application also allows you to run commands for any V-Tag in the network. The Command Center relies on the Alarm Monitoring Service to process all commands and incoming V-TAG messages.

Location Tracking System

The V-TAG tags can provide estimates of their own location. The V-TAG Location Tracking System (LTS) consists of Fixed Position Tags and Asset Tags. The Fixed Position Tags are tags that are not expected to move. The Asset Tags are attached to items that can move about. There are two different types of V-Tag hardware:

V-Tag –The Asset Tags automatically report which Fixed tag is their Nearest Fixed based on received signal strength of messages from neighboring Fixed Position Tags.

V-Tag GPS – The Asset Tags have a GPS chip on the tag. The tags report their latitude and longitude to the mesh network.

All V-Tags are shipped to the customer without batteries connected. V-Tags have their batteries disconnected and must be plugged in before using them. V-Tag GPS Asset tags come with batteries not included and require 3 CR123A batteries.

Fixed Position Tag Placement

When setting up the Fixed Position Tags, ideally the tags should be placed in a central location where Asset Tags will be located. Ideally the Fixed Position Tags should be positioned at least 8 feet from the ground to provide good line of sight to other tags. The orientation of the Fixed Position Tags do not matter, since the tag transmissions are omnidirectional. Please refer to the Tag Placement Guidelines document for more information.

AssetWorx Setup

In order to properly use the V-TAG Command Center, you will first need to set up data in the AssetWorx web application.

Assets Setup

First, create the assets that you desire to track and assign the 6 digit V-TAG serial number to them under the V-Tag ID field. Make sure that the V-Tag you are adding says Asset on the label rather than Fixed.

Edit Asset

Save

Cancel

General

Additional Fields

Picture

Children

Maintenance

Location History

Checkout History

Sensors

Name

005590

Last Observed Location

Asset Type

Asset Type

Last Observed Time

2017-08-31 14:43:07

Description

Description

Last Sensor Time

RFID Tag

240141434D454500000000D

Alert if unseen for (minutes)

V-Tag ID

005590

Alerting Action

Location

Courtyard

Checkout Status

Department Code

Checked Out To

Gateway

Smart Gateway

Print

Gateways Setup

The Alarm Monitoring Service is the Windows Service that maintains a connection to all Gateways. Every Gateway in the network will require a Reader record. Each reader record will need to be set as a V-Tag Gateway model with the correct IP Address information. To setup the Gateway on your network, follow the [V-Tag Smart Gateway Setup](#) document.

AssetWorx!

Save

Cancel

General

COM Port

Network

Settings

Name

Smart Gateway

Reader Model

InfinID VG100-1

Connection

Network

Location

Garage

Use With Service

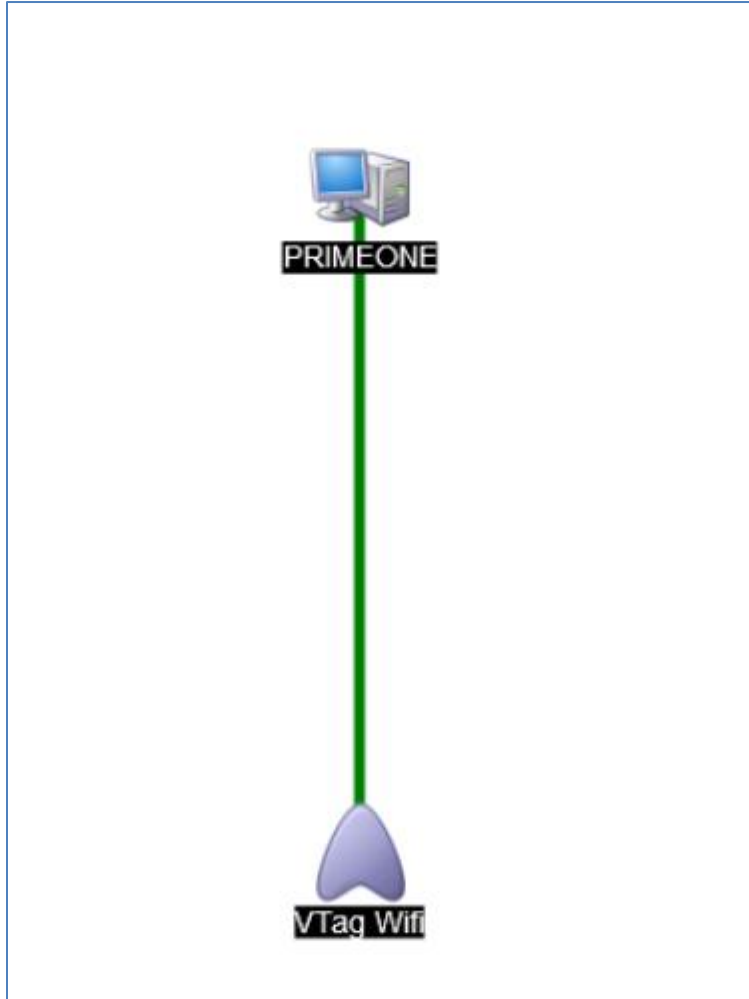
AMS Computer Name

On Tag Movement

My Alerting Action

Monitoring Device Connectivity

After installing the Alarm Monitoring Service (AMS) and configuring your Assets and Gateways, click on the Network Management menu to verify that the AMS is able to successfully connect. Green lines indicate an active connection whereas red lines indicate a disconnected state. In the event that you see red lines, check the AMS logs to see if any error messages appear.



V-TAG Command Center Setup

The Command Center has 5 primary screens which are used to manage your network. It allows you to view location information, send out commands to the network as well as view the status of commands that have been sent out.

Manage Sites

In the Command Center, a Site is a large area in which you want to track V-TAG assets. It could be a warehouse, a lay-down yard, or even a high-rise building with many floor levels. The Command Center allows you to create as many Sites as you need.

Creating a Site

To create a new Site, simply press the button to the right of the Sites list that has a plus sign. Next, give your Site a name and then assign which Gateway will be used for this Site. As Asset V-TAGs pass messages to the gateways that they are connected to, that information is logged which allows the system to match an Asset V-TAG with the appropriate Site's map. This is especially useful for companies that have many Sites that they want to track.



The screenshot shows the 'AssetWorx!' application interface for creating a new site. At the top, there is a dark header with the 'AssetWorx!' logo and a hamburger menu icon. Below the header, there are two buttons: a green 'Save' button and a red 'Cancel' button. The main form area is divided into sections. The first section is labeled 'Name' and contains a text input field with the text 'Main Site'. The second section is labeled 'Gateways: Available' and contains an empty list box with up and down arrow icons. Below this list box is a blue 'Add' button. The third section is labeled 'Assigned' and contains a list box with 'Smart Gateway' selected and highlighted in blue. Below this list box is a blue 'Remove' button.

Creating an Area

From the Manage Sites screen, click the Add button under the Areas dropdown. Give your new Area a name and then a Number. The Number will be used to differentiate your Area with other Areas. After you upload your map image, it will show up on the left. The map control allows you to drag around the image as well as zoom in and out.

Enter in the width or height estimate of the map. If this is a map that will utilize GPS, place the red and blue pin on a spot on the map and then enter the correct latitude and longitude values. Setting these coordinates will be used as a reference to correctly place GPS assets on the map.

The default dimensions are measured in feet although you can change your dimensions to meters with the Options screen under Tools.

Add/Edit Area

Save

Cancel

Name

Number

Map Width (Foot)

Map Height (Foot)

Pixels Per Foot

Red Pin Latitude

Red Pin Longitude

Blue Pin Latitude


Blue Pin Longitude

Choose File

No file chosen

+

-



Manage Tags

After the Sites and Areas have all been configured, click on the Manage Tags menu. The Manage Tags screen is used to display where V-TAGs are physically located. It also is used to setup your Fixed Position Tags as well as send map related commands to your tags. On the right of the screen is the map display and on the left is the paged list of your Asset Tags. Just below the paged list of tags is the section which lets you choose which map commands you want to send out. Green pins are considered Active. Orange pins have been moved within the last 5 minutes. Red pins are considered inactive. Pins with the Home icon are fixed tags. Pins with the Star icon are asset tags.

Site
Main Site
Area
Office

Search for...

Show All Tags

Commands

Get Position

Query the position of V-Tags.

0: Affected Tags

Run Command

Asset Tags
GPS 004102
GPS 004103
GPS 004107
GPS 004108
Office Asset LR 1
Office Asset LR 2

✓	▼	Name	V-Tag ID	V Tag
✓	📍	GPS 004102	004102	V
✓	📍	GPS 004103	004103	V
✓	📍	GPS 004107	004107	V
✓	📍	GPS 004108	004108	V
✓	📍	Office Asset LR 1	006F0A	V
✓	📍	Office Asset LR 2	0076AE	V

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1 - 6 of
6 items

200
items per page

90 : 398

Setting Fixed Position Tags

The V-Tag mesh network works right out of the box, but in order to see your Asset tags on the map, you will need to run a Set Position command for every Fixed tag. The maximum distance that V-TAGs can communicate is 300 feet, so make sure that you place a sufficient number of Fixed Position Tags to maintain connectivity.


In order to set a Fixed Position Tag, simply select the Set Position Command in the drop down and then click the map where you want to place a Fixed Position Tag. This will bring up the Set Position dialog which will allow you to choose the Fixed Tag you want to run the command for.

Choose an existing fixed tag to Set Position off of. If you don't see the tag in the list, it could be that it is not plugged in yet. In this case, you can manually enter the V-Tag ID, V-Tag Type, Name, and Location text fields. This will create a new Fixed Tag record in the database.

Choosing an appropriate Location for the Fixed Tag will make it so that asset records will show appropriate Location History information as they move between Fixed Tags.

Set Position

Choose the fixed tag from the list below. When done, choose the new Position Type and press the OK button.

Type to Search 

✓	V-Tag ID	Location
✓	00204A	Missing
✓	002028	Missing
✓	00201B	Balcony
✓	002003	Balcony

1 / 3 10 items per page 1 - 10 of 30 items

V-Tag ID

V-Tag Type

Name

Location

X(feet) Y(feet)

Asset Commands

The Asset Commands screen is used to send non-map based commands to your V-TAG network. Search for assets you want to send commands to on the left and click the “Add” button to add them to the Assigned list on the right. Each command has a detailed description so refer to it for further details.

AssetWorx!

Screens Views Tools About

Log Out

Asset Commands

Select from the Available Assets and press the Add button to add to the Assigned Assets list. When done, move to the Commands section to save your commands.

✓	Name	V-Tag
✓	005590	00
✓	005B21	00
✓	006DD2	00

Add

Remove

< >

1

1

10 items per page

1 4 of 3 items

✓	Name	V-Tag
✓	005590	00
✓	005B21	00

Commands

Set Threshold Accel Upper

Please enter in the new level for the threshold 'Acceleration Upper (g)', then enter the duration and press the Save Command button.

Level (g)

1

Duration (ms)

20

Run Command

< >

Network Commands

The Network Commands screen is used to send Gateway specific commands out. These are commands that a Gateway device needs to manage rather than a command that would go out to any specific V-TAG.

1. Set Security allows you to designate a Gateway as a choke point.
2. Set Reporting Interval lets you set how often each V-TAG will send its sensor reports to the gateway.
3. Reset Network will tell every tag on the network to start rediscovering its neighbors which can help with diagnostics.
4. Set GPS Discovery Mode – Only applies to GPS tags. This setting lets you choose when the GPS Asset tags will do a GPS discovery.

AssetWorx! Screens Views Tools About

Network Commands

Network Commands are V-Tag commands that apply to the entire network, rather than an individual tag. Choose the command type to program and enter the appropriate values.

Commands

Set Reporting Interval

Please choose the reporting interval. To make your gateway neutral, set it to Any. When done, press the Save Command button.

Gateway:

Smart Gateway

Reporting Interval:

Any

Run Command

Queued Commands

Queued Commands will show you the activity of all of the commands that are being sent out to the network. You can filter by Command Type and/or Status. In the event that a command fails, simply press the “Resend Commands” button to try again. To cancel a command that has not yet returned, press the “Cancel Commands” button. The refresh button at the bottom will refresh the screen.

AssetWorx! Screens Views Tools About Log Out

Queued Commands
The grid below provides a list of the most recent Queued Commands sorted by date. To retry a failed command, simply select the command in the grid and press the Retry button.

Command Type:

Command Status:

Before

Search

Created	Command Type	Command Text
2017-09-01 10:30:05	Reset Network	
2017-09-01 10:18:15	Reset Network	
2017-09-01 09:56:13	Reset Network	
2017-08-31 14:17:57	Set Position	888888:14:-10.99999999
2017-08-30 14:04:40	Activate	006DD2
2017-08-30 14:04:40	Activate	005B21
2017-08-30 14:04:40	Activate	005590

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Refresh

Cancel Commands

Resend Commands