

Command Viewpoint

USER GUIDE

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Introduction

In this chapter

- Using Viewpoint

Wavetronix Viewpoint™ is a software solution that combines information from sensors, cameras, and other traffic devices to create a Web-based traffic map.

Viewpoint provides an easy-to-use interface in which users can view a map of their area, at varying magnifications, that includes many categories of traffic information. Each information category has its own layer; these layers can be turned on or off depending on what users need to view.

The software features three different map interfaces:

- **Operator** - Offers full functionality and map control for management center operators
- **Video wall** - A full screen view for display on a management center video wall

Using Viewpoint

This user guide is divided into five chapters; one for each page of the Viewpoint interface:

- View Map
- Edit Map
- Video Wall Map
- System
- Help

The View Map and Video Wall Map areas can be accessed by anyone who has access to the

server that Viewpoint is on, as it doesn't require the users log in. Through the View Map area, users can access both the operator map interface

To edit the map, however, users must access the Edit Map area by logging in; this editable map is the operator interface mentioned above.

Viewpoint must be set up with information about roads, speeds, detectors, etc. before it can be used. Customers can contract with Wavetronix to perform this work, or they can do it themselves. The second part of this guide instructs how to do this; the information can also be used to change settings that have already been configured. Part 1, however, assumes that the map has already been configured.

Logging In

To log in, click the **Login** link on the upper right-hand side of the screen, beneath the Wavetronix logo. This will open the Viewpoint Login screen (see Figure I.1). Viewpoint requires that users log in using a pre-assigned username and password, which allows for specific levels of access as assigned by the system administrator. Users with administrator privileges will be able to change usernames and passwords, create and delete users, and assign specific privileges to other users (see the Users section in Chapter 5).

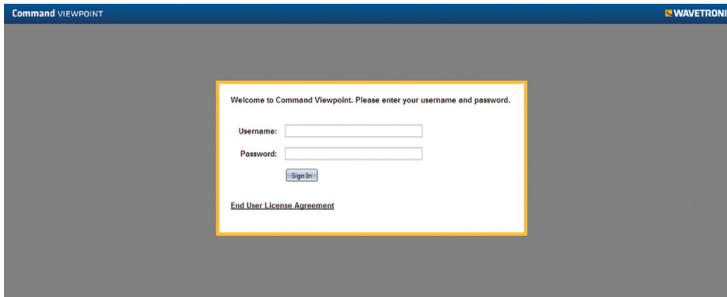


Figure 1.1 – Login Screen

The default username is “administrator” and the default password is “password.” Be sure to change the password to something more secure as soon as possible; how to do this is explained in Chapter 5.

Installing Command HQ

In this chapter

- Installing Command HQ
- Licensing Command

The Command HQ installer is a setup tool for installing all Command products together. It deals with prerequisites like IIS and SQL Server and also creates the necessary databases for each product. This is also where you will enter your license key.

Installing Command HQ

Follow the instructions in this chapter to install Command HQ:

- 1 Once the welcome screen appears, you can start the install by clicking the **Next** button.

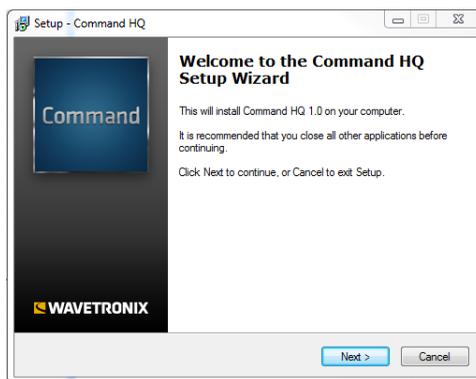


Figure 1.1 – Command HQ Setup Wizard

- 2 You will then be asked to read the information in the license agreement. Once you have done that, click the **I accept the agreement** radio button and then click the **Next** button.



Figure 1.2 – License Agreement

- 3 If .Net Framework is not present on the system, you will be prompted to install it. Installing .Net will take several minutes.

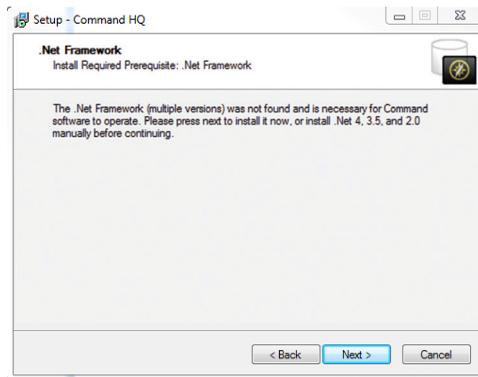


Figure 1.3 – .Net Framework Installation

Note

If the installer won't allow you to advance past the .Net page after many minutes, you may need to reboot the computer and run the installer again.

- 4 If IIS is not present on the system, then the installer will prompt you to install it. IIS is a Microsoft web server application that is necessary for Command software.

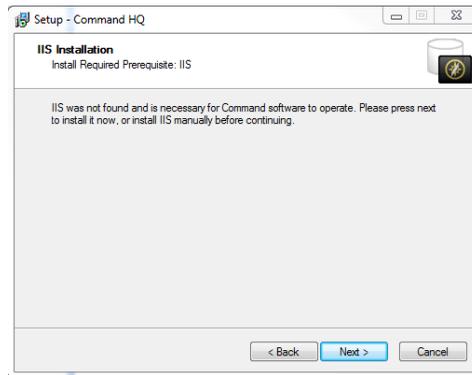


Figure 1.4 – IIS Installation

Click the **Next** button to install IIS to your system. You will see a progress bar indicating that IIS is being installed.

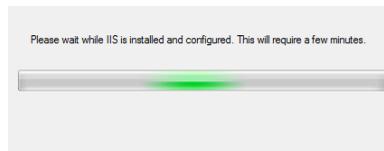


Figure 1.5 – IIS Progress Bar

- 5 Enter the product license key. Typically the license key is emailed to the customer after a Command order has been processed. If you don't have a key, please contact your Wavetronix representative.

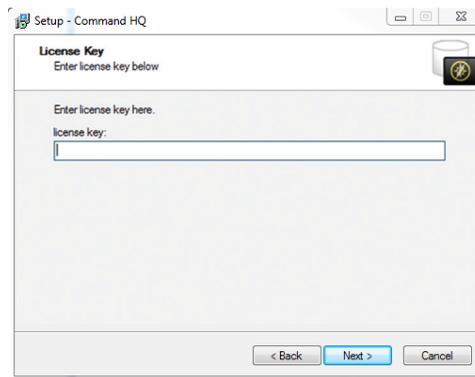


Figure 1.6 – Enter License Key

Note

More information on license keys can be found in the next section of this chapter.

- 6 Command software requires SQL Server. You may use any available SQL Server. If you have an existing server, or want to manage the SQL Server yourself, it will need to be ready before proceeding with the Command software installation. Otherwise the installer allows the option of having it download and install the free Express edition of SQL Server.

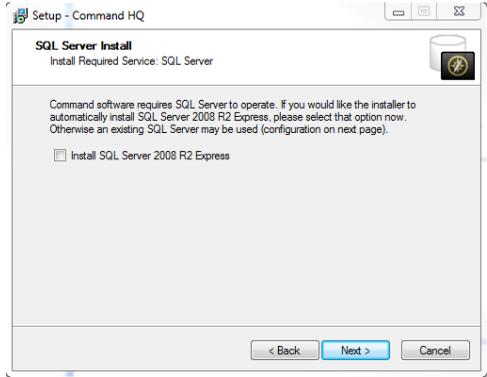


Figure 1.7 – Installing SQL Server

- 7 Now, choose between Basic or Advanced installation mode. **Basic Mode** will install the software using default values for each component; **Advanced Mode** will allow you to customize your installation.

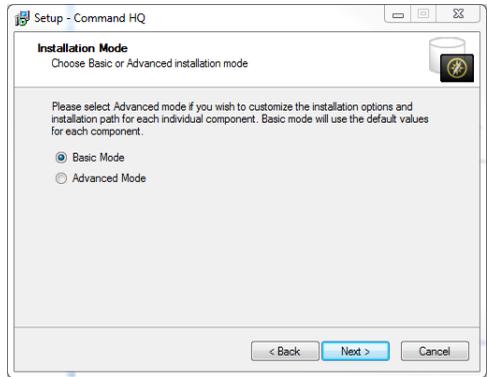


Figure 1.8 – Installation Mode

- 8 Manually select which Command components you wish to install and then click **Next**.

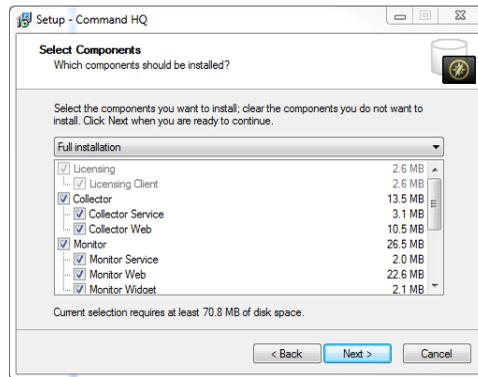


Figure 1.9 – Selecting Components

- Review the installation settings that you have selected. Once you are ready, click the **Install** button.

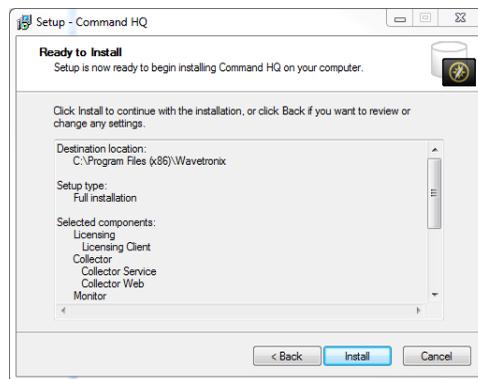


Figure 1.10 – Ready to Install

- Once your installation is complete, click the **Finish** button.

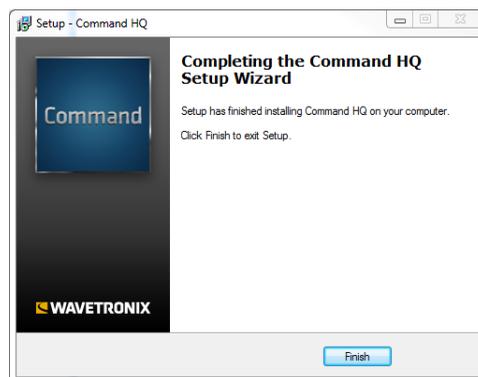


Figure 1.11 – Finish Setup

Command Licensing

If the license activation during the setup process fails for any reason, then it will be necessary to use the license client web application to complete the licensing process.

License Client Web Application

The client web application is installed as part of the Command HQ license activation process. To access the client web app use the shortcut on the desktop named Licensing Login, or use a browser to access the following URL: <http://localhost/Licensing/ActivateLicense>

When the app loads it will ask for your product key.

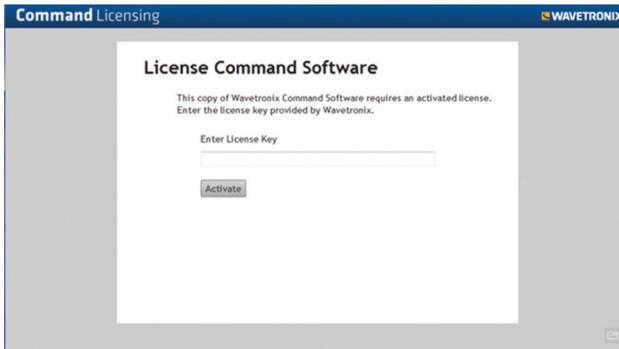


Figure 1.12 – License Client Web App

After the key is entered, press the **Activate** button to proceed.

The client web app will attempt to activate the license using the licensing server hosted by Wavetronix. If successful, the system will indicate that the license has been activated; otherwise, it will fail and provide options for offline activation.

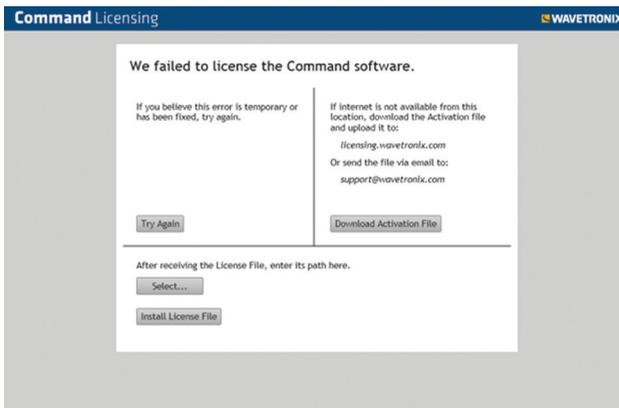


Figure 1.13 – Failed to License Page

Offline Activation

If there is no internet access on the machine where Command is being installed, it is still possible to activate the license. To do this, follow the steps below:

- 1 Click the **Download Activation File** button and save the activation file to a known location.
- 2 Take the activation file to a computer that does have access to the internet, then open the following URL on that computer: <http://licensing.wavetronix.com/LicensingPublic>
You will then see the screen below. This is called the public licensing tool.

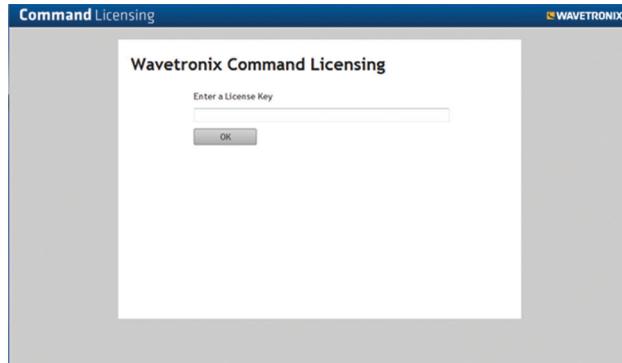


Figure 1.14 – Public Licensing Tool

- 3 Enter the license key into the public licensing tool, then press the **OK** button. If the license is valid, then the License Details page will be loaded.



Figure 1.15 – License Details Page

- 4 Press the **Activate License** button to load the Activate License page. This page allows the activation file that was saved from the license client web app to be uploaded to the public license tool.

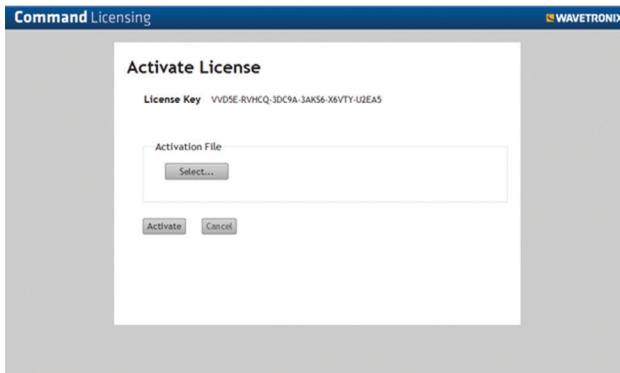


Figure 1.16 – Activate License Page

- 5 Press the **Select** button to browse for the activation file. After the file is selected, click the **Activate** button.



Figure 1.17 – Select the Activation File

If the activation succeeds then you will be able to download the license file to be installed on your Command computer.

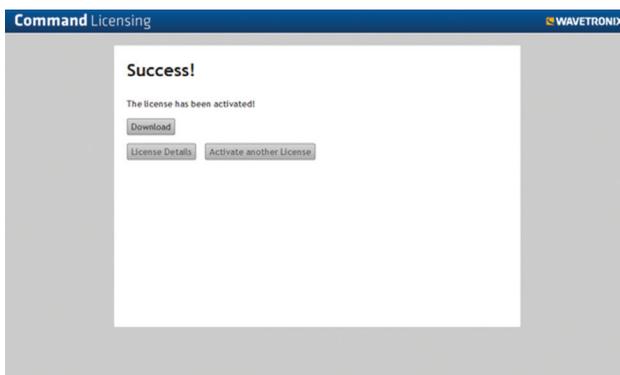


Figure 1.18 – Public Licensing Success

- 6 Press the **Download** button to save the license file to the computer.
- 7 Take the license file back to the Command computer and use the license client web app to install it.
- 8 Click the **Select** button to attach the license file.



Figure 1.19 – Attach the License File to the License Client Web App

- 9 Press the **Install License File** button to complete the licensing process.

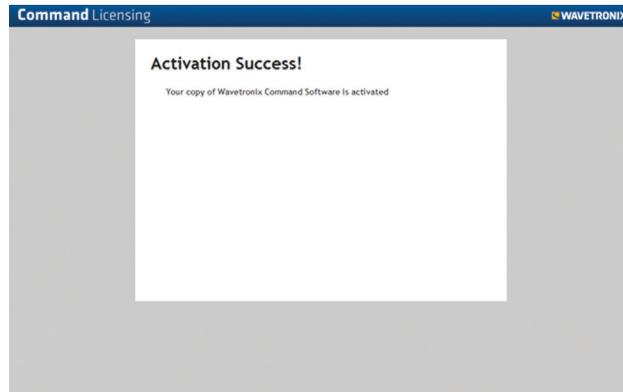


Figure 1.20 – Activation Success.

License activation is now complete.

Note

If you have licensing issues, please contact your Wavetronix representative.

In this chapter

- Operator Map View Controls
- Operator Map Traffic Icon Details
- Layers

This chapter covers the part of the software referred to as the Map View area. Viewpoint differs from most other Command appliances in that it provides access to a great deal of information—the operator map and all the information thereon, as well as the video wall map—to anyone who can get to Viewpoint without requiring a login; in contrast, most Command appliances require users to log in before any use can occur. However, users must log in to Viewpoint if they intend to edit the map in any way. (The operator map and the video wall map can both also be accessed once you’ve logged in.)

The part of the software module that can be accessed without a login will be referred to as the Map View area, because everything is view-only.

Note

As mentioned in the introduction, the two maps viewable in the Map View area must be configured before using; customers can contract with Wavetronix to do this or can do it themselves using the information in Part 2 of this document.

To access Viewpoint, open a Web browser and enter the appliance’s URL in the address text box. This URL will be the name of the Viewpoint server installed at your location, followed by “/Viewpoint”. For instance, if the server were named “Enterprise,” then the

URL would be “http://Enterprise/Viewpoint”. The URL for Viewpoint is created once Viewpoint is integrated into the local network.

The first screen that appears is the main view in the Map View area. The focal point of this main screen is the operator map interface.

Note

You can also access the operator map once you’ve logged into the Viewpoint system.

This will be a map of a given area, at a pre-determined magnification, with icons and colored bands indicating traffic speeds and the presence of traffic detection/information devices.

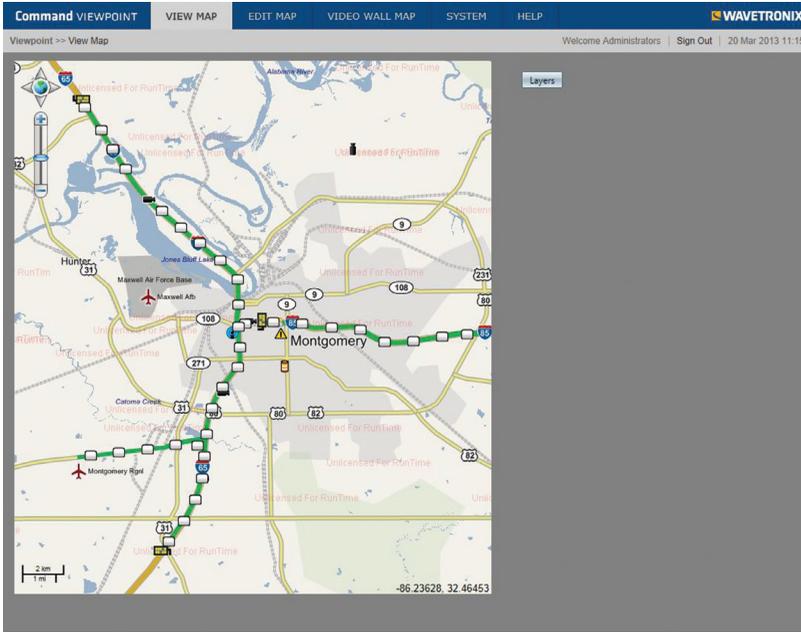


Figure 2.1 – Map View Area

Note

The location and magnification of this map, along with the view controls available, can be altered in the Map Edit area, as will be discussed later.

Operator Map View Controls

A few tools exist for changing the view of the operator map: the pan zoom bar and the mini map. (There is also the scale line, located in the lower lefthand corner; this does not actually allow you to change the view of the map, but it does give you a point of reference for distances on the map.)

Pan Zoom Bar

This control, located in the upper lefthand corner of the map, allows users to move the area the operator map is viewing, as well as the magnification. It has two controls, described below.



Figure 2.2 – Pan Zoom Bar

- The pan arrows at the top of the pan zoom bar allow you to pan your view up, down, left or right.
- The zoom bar is the scroll bar with the plus and minus signs at either end. This zooms the view of the map in or out. To zoom out, click the – button; to zoom in, click the + button, or double-click on the map. To zoom in or out quickly, grab the blue knob in the scroll bar and slide it to the desired magnification, then release; alternatively, click once on the scroll bar to automatically send the knob to that spot.

Note

You can also control your view of the map without using the pan zoom bar. You can view different parts of the map by grabbing and dragging the map with your mouse, or by using the arrow keys on your keyboard. To zoom in and out, use the + and – keys on your keyboard or the scroll wheel on top of your mouse.

Operator Map Traffic Icon Details

The operator map in the Map View area allows management center operators to view information about traffic, traffic detectors, traffic incidents and traffic information systems. It does this with graphical representations of the above—icons for traffic detectors, incidents and information systems, and colored bands for traffic. The icons (but not the colored bands) can be clicked on to access extra information about the device represented by that icon.



Figure 2.3 – Traffic Icons

Note

Problems with the data coming from any of these devices are indicated by colored dots appearing on their icons. A yellow dot indicates a warning; a red dot indicates there is a critical error.

Sensors

 Clicking on a sensor icon brings up the Sensor Details boxes next to the map. “Sensor” can mean a number of different kinds of detectors, such as Wavetronix Smart-Sensors, inductive loops, magnetic detectors, acoustic detectors, etc. They will appear as the icon shown above, however.

Information from a sensor/detector can come from two different sources. If you’re managing your sensors with the Wavetronix Collector appliance, Viewpoint can communicate directly with Collector to get all the necessary data about sensors on your map. If you’re not using Collector, and are using another sensor management program, that program needs to create and update XML files containing detector information; Viewpoint will regularly access these XML files to keep its map updated.

There are two boxes in the Sensor Details area (see Figure 2.5). The top one gives descrip-

tive information about the sensor/detector.

Sensor Details			
Type:	microwave radar		
Status:	Collector		
Address:	cloud9.wavetronix.com:5017[1]		
Location:	32.386865; -86.321958		
Description:			
Custom Id:			
Interval:	30		
Frequency:			

Current Sensor Data			
Lane	Speed	Volume	Occupancy
8	33.2	15	38.0
7	49.1	9	14.8
6	32.9	13	31.7
5	51.3	8	12.9
4	61	3	4.2
3	67.6	5	6.4
2	61.2	6	8.4
1	71.4	6	8.4

Figure 2.4 – Sensor Details

- **Type** - Lists the type of sensor (i.e. acoustic, microwave radar, loops).
- **Status** - Provides a link to the sensor management software so that sensor status can be monitored.
- **Address** - Gives the IP address of the sensor.
- **Location** - Shows the coordinates of the sensor.
- **Description** - Shows the user-entered description of the sensor. This setting is purely for the information of the user; Collector does not require that it be filled out (third party software may or may not require it).
- **Custom ID** - Shows the user-created ID of the sensor. As with description, this is optional and only for ease of identification.
- **Interval** - Lists the interval of data aggregation, in seconds.
- **Frequency** - Shows how often, in seconds, the management software is collecting data from the sensor/detector.

The lower box shows the last set of data reported by the sensor. Each line represents a configured lane and the data recorded in that lane.

- **Lane** - Gives the number of the lane (the smallest number is usually the one closest to the sensor).
- **Speed** - Shows the average speed of traffic during the interval.
- **Volume** - Lists the number of vehicles that passed during the interval.
- **Occupancy** - Gives the occupancy of the lane during the interval (defined as the percentage of the interval time during which the detection zone in that lane was occupied).

If the detector is not reporting all of the above information, one or more of these columns may be blank or show all zeroes.

Note

Viewpoint communicates with the management software to receive new data roughly every 30 seconds; however, the Current Sensor Data box won't update until you refresh the page, or leave the page and come back.

Cameras



Clicking on a camera icon causes the Camera Details box, shown below, to appear next to the map.

Information for a particular camera can come from two different sources: directly from Insight, if the camera is managed there, or from an XML file created by another camera management program (this third party software should update these XML files often; Viewpoint uses this data to update its display every 30 seconds). The source of the data changes how it is displayed, as will be explained below.

This area has the following information about the camera whose icon was just clicked:

Camera Details

A photograph showing a road winding through a snowy, mountainous landscape. The road has lane markings and a guardrail on the right side. The surrounding area is covered in snow and has some trees in the background.

Camera Type: Axis
Custom Id: Test Camera
Address: 10.10.0.10

Figure 2.5 - Camera Details

- **Camera image** - Several things may appear in the space at the top of the box. If the camera is in Insight, the feed from the camera will appear (for this to work, however, you must be using Internet Explorer in Windows with the correct ActiveX controls).

If the camera is not managed in Insight, and the camera data is coming from an XML file, it's possible to edit the XML file so that this space shows a Web image, a Web link,

or an embedded Windows Media Player video feed. Contact Wavetronix for more information.

- **Camera type** – The text here varies depending on what is shown for the camera image: if the camera is in Insight, the name of its brand will appear on this line; if a Web link, image or video is embedded here, this line will say “Web link,” “Web image” or “MS Player” for the embedded video player.
- **Custom Id** – Shows the custom text entered about this camera; this information must be entered in Command Insight or by editing the XML file; contact Wavetronix for more information.
- **Address** – Shows the IP address of the camera.

DMS

 Clicking on a DMS icon displays the Dynamic Message Sign Details box appear next to the map. It will show the following information about the DMS whose icon was just clicked:

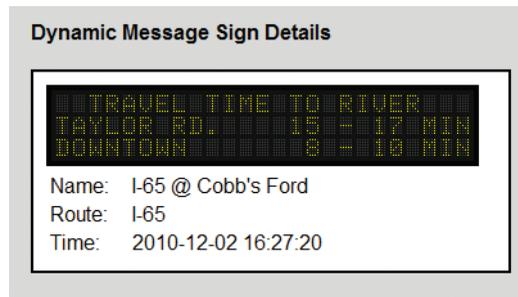


Figure 2.6 – Dynamic Message Sign Details

- **Image** – At the top of the box will be an illustration of a DMS displaying the message that the DMS is currently displaying.
- **Name** – Shows the name of the dynamic message sign.
- **Route** – Prints the name of the road on which the DMS is installed.
- **Time** – Shows the latest date/time stored in the XML file; usually this will be the time it was last updated.

The text displayed in these fields is based on the data currently in the sign’s XML file. A DMS is normally is being fed information by software such as Command Translator; with Translator, that software can be set up to regularly create XML files containing all pertinent information. Viewpoint checks for these new XML files and uses them to update the Dynamic Message Sign Details box.

Note

If there is currently a message being displayed by (or at least sent to) the DMS, the icon will show yellow spots representing that message. If the sign is currently blank, the icon will appear blank as well.

HARS



Clicking on a HARS icon makes the Highway Advisory Radio Details box appear next to the map. It will show the following information about the HARS whose icon was just clicked:

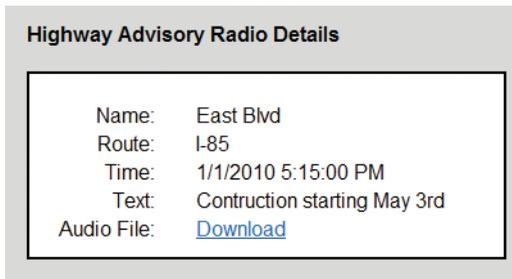


Figure 2.7 – Highway Advisory Radio Details

- **Name** – Shows the name of the highway advisory radio station.
- **Route** – Prints the name of the road on which the station is installed.
- **Time** – Shows the latest date/time stored in the XML file; usually this will be the time it was last updated.
- **Text** – Displays the text of the current HARS message.
- **Audio File** – Provides a link to the current audio file; depending on how the system is set up, this line may not be available.

The text displayed in all of these fields is based on the information currently stored in the XML file. Like a DMS, usually a HARS is being fed information by software such as Command Translator; that software can be set up to regularly update information in XML files. Viewpoint checks for these new XML files and uses them to update the Highway Advisory Radio Details box.

RWIS



Clicking on an RWIS icon shows the Weather Station Details box. Viewpoint will update its display for an RWIS based on an XML file created by the same 3rd party program that is managing the RWIS. Clicking on an icon for such a station will show the following information:

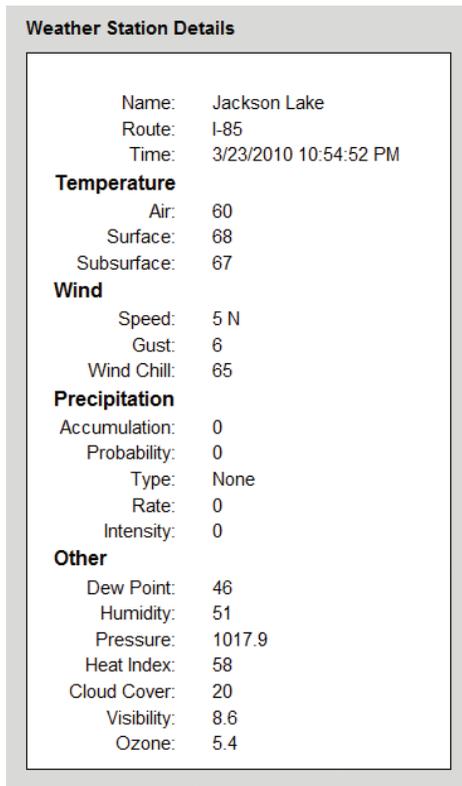


Figure 2.8 – Weather Station Details

- **Name** – Gives the name of the weather station.
- **Route** – Shows the name of the road the station is at or near.
- **Time** – Prints the latest date/time stored in the XML file; usually this will be the time it was last updated.
- **Temperature** – Displays the current air, surface and subsurface temperatures as recorded at the station.
- **Wind** – Displays the current wind speed, gust speeds, and wind chill temperature as recorded at the station.
- **Precipitation** – Displays the amount of accumulated precipitation, the probability of precipitation in the near future, and the type, rate and intensity of precipitation (if applicable) as recorded at the station.
- **Other** – Displays the dew point, the relative humidity, the barometric pressure, the heat index, the cloud cover, the visibility, and the concentration of ozone pollution as recorded at the station.

Incidents

Unlike the above devices, which are represented by one kind of icon each, incidents can appear as several different icons:



Planned – Shows incidents that were expected and planned for, such as road closures due to parades.



Accident – Indicates the presence of a traffic accident or another kind of unplanned traffic incident.



Construction – Shows where on the road planned construction projects are underway.

Viewpoint gets this incident information from XML files output by 3rd party incident management software.

Clicking on one of the icons will show the following information (the different kinds of incidents all display the same information):

Incident Details	
Category:	Accident
Location:	I-65 MM 170
Reported At:	12/6/2010 6:53:46 PM
Estimated Clear Time:	12/6/2010 7:30:00 PM

Figure 2.9 – Incident Details

- **Category** – Lists the category that the incident falls into: planned, accident or construction.
- **Location** – Shows the location of the incident. The exact display will vary based on how the incident management software lists locations, but it will likely show the name of the road and the nearest mile marker.
- **Reported At** – Displays the date and time that the incident was reported.
- **Estimated Clear Time** – Displays the date and time that the incident is expected to be over and cleared out.

Traffic

The traffic is the only graphic on the operator map that can't be clicked on to get more information. The amount of traffic information (as detected by the sensors/detectors on that road) is simply indicated by the color of the road segment. The map can be set up with either a 3-color scheme or a 5-color scheme. As with most traffic maps, each color represents a range of speeds. Which colors represent which speeds varies based on the speed of the road; traffic going 40 mph on a 65 mph road would show up yellow, but traffic going 40 mph on a 40 mph road would show up green. For that reason the numbers below are given as percentages of the posted speed limit.

By default, the 3-color scheme is set up as follows:

- **Green** - The road shows green if traffic is moving at 78%–100% of the speed limit
- **Yellow** - 48%–77% of the speed limit
- **Red** - 0%–47% of the speed limit

By default, the 5-color scheme is set up as follows:

- **Green** - The road shows green if traffic is moving at 94%–100% of the speed limit
- **Yellow-green** - 78%–93% of the speed limit
- **Yellow** - 48%–77% of the speed limit
- **Orange** - 32%–47% of the speed limit
- **Red** - 0%–30% of the speed limit

These thresholds can be changed in the Map Edit area, as will be discussed later.

Layers

The Layers window allows you to set what kinds of icons and informations the maps display; the changes made here affect the display of both the operator map and the video wall map. Open this pop-up window by clicking the **Layers** link in the main toolbar at the top of the screen.

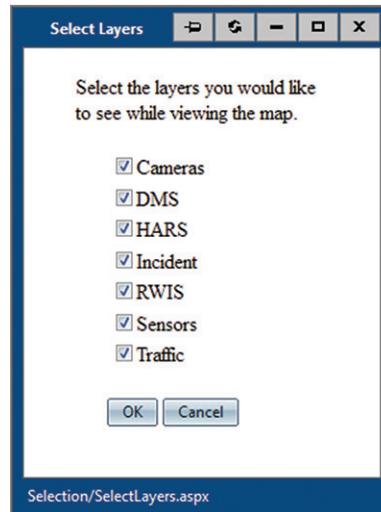


Figure 2.10 - Layers Window

Each of the graphical elements discussed above—the sensor and RWIS and DMS icons, the traffic colors—is stored on a separate layer. The Layers window allows you to turn different layers on and off so that only certain information and graphics are displayed on the maps. Once the settings have been changed, click **OK** to save them and return to the map or **Cancel** to discard them and return to the main map view screen. The changes made will appear on the operator map and, once opened, the video wall map.

The Layers pop-up window lists the seven layers—Cameras, DMS, HARS, Incident, RWIS, Sensors and Traffic—with a checkbox next to each. To show a layer, select the checkbox next to it; to hide a layer, clear the checkbox next to it.

The Layers window also has a toolbar across the top that controls the Layers window.

- **Full window** - The window icon on the left opens the Layers pop-up window full screen in the browser. This will usually not be necessary to do.
- **Pin on** - The thumbtack icon pins the Layers pop-up window to where it is on the screen so it can't be moved.
- **Reload** - Refreshes the Layers window.
- **Minimize, Maximize** - These two options minimize or maximize the window.
- **Close** - Closes the window. If you use this to close the window, anything you've changed in the window will not be saved.

Note

Display changes made in the Layers window are not permanent. Once you close the browser window that Viewpoint was displayed in, the next time you access Viewpoint it will have returned to the default; similarly, if you log in to the Map Edit area and then log out, the Map View map will return to the default.

In this chapter

- Sensors
- Cameras
- DMS
- RWIS
- HARS
- Incident
- Traffic
- Video Wall Presets
- Configure Map
- Traffic Color Schemes

Configuring the various maps is done under the **Edit Map** link in the menu bar. Clicking on this link opens a large view of the operator map, along with links across the top of the page leading to different map editing options.

Note

Most of these settings are for the operator map (although altering the operator map can in some cases alter the video wall map). However, the video wall presets directly affects the video wall map.

The **Map Edit** link is generally only for adding, moving, and deleting items; more in-depth configuration must be done in the software set aside for managing that item (such as Command Insight or Collector). The exceptions to this are the **Traffic**, **Video Wall Presets**, **Configure Map**, and **Traffic Color Schemes** links.

Opening the editing screen for any of the traffic information categories that appear on the operator map (sensors, traffic, etc.) will cause only that item to appear on the map. The view and magnification of the map can be changed using the pan zoom bar in the upper lefthand corner. This bar operates the same as the pan zoom bar in the Map View area; for more information on how to use it, see Chapter 2.

For most of the screens available under Edit Map, the map will be displayed on the left; on the right will be the controls for configuring the item (cameras, incidents, etc.) you selected. When you click on **Edit Map**, it will by default open the Edit Sensors screen, which is the first link at the top of the page.

Sensors

Clicking on the **Sensors** link at the top of the page opens the Edit Sensors screen. This screen allows you to view, add, move and remove the map's sensor and detector icons; it also provides information about each device.

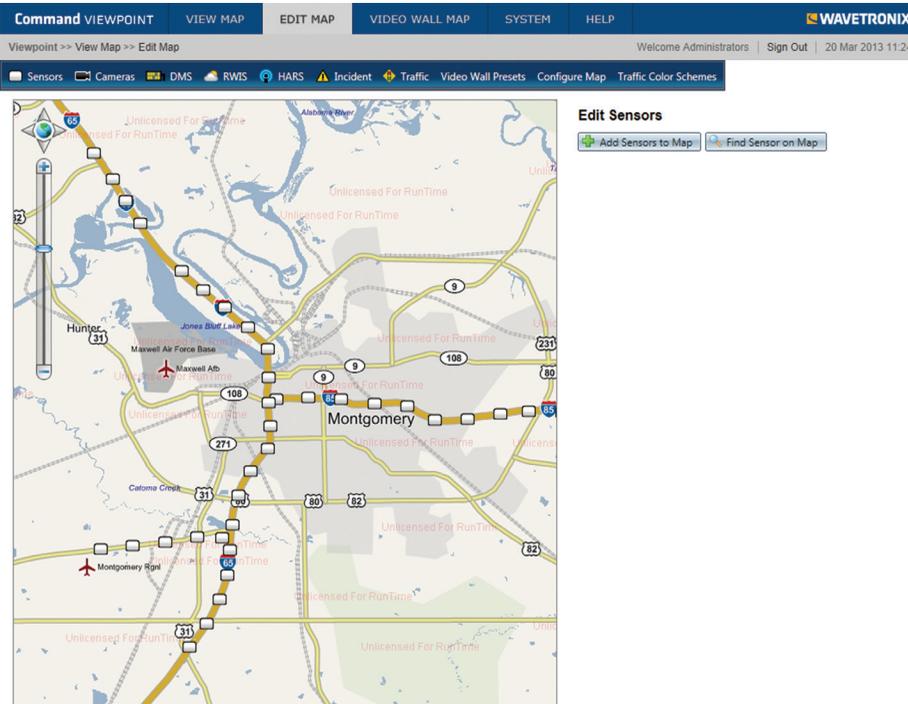


Figure 3.1 – Edit Sensors

When the screen opens, the map will show only the map and the currently configured detectors/sensors. At right are two links, **Add Sensors to Map** and **Find Sensor on Map**.

There are two ways that sensors and detectors can be added to Viewpoint.

- If they are managed by Collector, Viewpoint can communicate directly with that appliance to download sensor/detector information. In this case, before you started working with sensors/detectors you'd need to go into **System > Collectors** to add the Collector service; how to do this will be covered in the System chapter.
- If they are managed by a 3rd party appliance, that appliance can regularly create/update XML files and deposit them in the **C: > Program Files > Wavetronix > Viewpoint > Service > Station Data** folder; Viewpoint will read those files every 30 seconds to get the most updated information. In this case you need to configure the 3rd party appliance to create the XML files in the right format so that Viewpoint can read them and deposit the XML files in the correct folder.

In this case, you don't have to manually add the detectors to the map; they will be automatically added as soon as Viewpoint finds their XML files in the Station Data folder. However, it's possible for a detector to be added to the map and yet not appear, if its configured location is outside the map's specified extent. The **Find Sensor on Map** link helps locate such detectors.

Note

Setting up both Collectors and 3rd party appliances can be done by your organization, but for ease you can also contract with Wavetronix to do the configuration and setup work.

Add Sensors to Map

The **Add Sensors to Map** link allows you to add sensors and detectors to the Viewpoint map. You will only use this link with sensors/detectors that are managed by a Collector that Viewpoint has been configured to communicate with (as mentioned above, it is not necessary to add detectors from 3rd party software to the map, because Viewpoint will automatically add them as soon as it finds their XML files). Once you've added a Collector service to Viewpoint, all of its detectors are available for use on the map, but you must use the **Add Sensors to Map** link to add them.

Once you've clicked on the link, the Select Sensor window will appear.

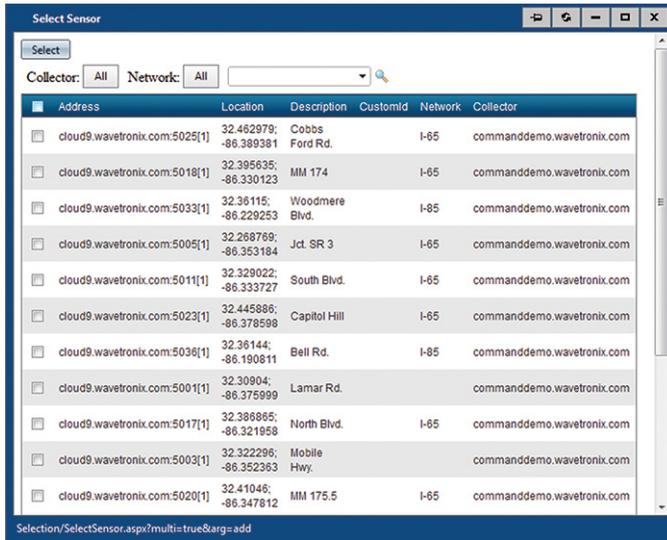


Figure 3.2 – Select Sensor

This screen will list all the sensors and detectors in a given Collector (or in all configured Collectors). At the top of the screen are the following controls for determining what the list displays:

- **Collector** – Click on this button to open a drop-down list of Collectors; select a Collector to display its sensors/detectors. Select **All** to show the detectors from all configured Collectors.
- **Network** – Click on this button to open a drop-down list of the networks in the current Collector (or Collectors, if you selected **All**); select a network to display all the sensors and detectors that belong to that network.
- **Search** – The text field on the right lets you type in a search term to find a particular sensor or detector; it will search for these terms in the Address, Location, Description, and CustomId fields (more about these below). After typing in the term, click on the binoculars icon (🔍) next to the text field. Previously searched terms can be quickly accessed by clicking on the down arrow in the text field to open a drop-down list of these terms.

The sensor list—the main box that takes up most of the window—shows the following information about each sensor or detector in the currently selected Collector:

- **Address** – Shows the IP address of the detector.
- **Location** – Shows the latitude and longitude of the detector.
- **Description** – Shows the customer-created description of the detector; as this field is optional in Collector, it may appear blank here.
- **CustomId** – Shows the customer-created description of the detector; as this field is optional in Collector, it may appear blank here.
- **Network** – Shows which network(s) the detector is assigned to in Collector.

- **Collector** - Shows which configured Collector service the sensor or detector belongs to.

To sort the list of the detectors by one of these criteria, click on its name at the top of its column. The whole list will be rearranged alphabetically. Click on the criterion name again to arrange the list in reverse alphabetical order.

All these fields appear as they are set in Collector and can't be changed here.

At the bottom of the list are the following controls for paging through the detectors/sensors:



Figure 3.3 - Sensor List Paging Controls

- **Arrows** - The four arrows on the left let you move between pages. Click the regular arrow (no line in front of it) pointing left to move backward one page; use the skip arrow (line in front of it) pointing left to move backward to the first page. Click the regular arrow pointing right to move forward one page; use the skip arrow pointing right to move forward to the last page.
- **Page numbers** - The numbers in the middle of the arrows indicate the different pages. Click on a number to go to that page.
- **Page size** - This drop-down menu lets you select how many detectors/sensors should be shown on each page: 10, 15, 20 or 50.
- **Item/page information** - The text on the righthand side shows how many sensors/detectors total are on the list, and how many pages they are spread across.

In order to add a sensor or detector to the map, use the controls discussed to locate that detector, then click on the checkbox next to it. Multiple sensors/detectors can be selected at the same, but if you select a sensor/detector on one page of the sensor list and then navigate to another page, your selection will be cleared; you may need to change the page size to select all the sensors/detectors desired. If you want to select all sensors/detectors on a page, click the checkbox at the very top of the sensor list.

Once you've selected your detector(s), click **Select**. The Select Sensor window will close. The detector or sensor will appear on the map in the location specified by its latitude and longitude settings, unless those settings place it outside the specified extent of the map (more about that later); in that case, the detector or sensor will simply appear in the middle of the current view.

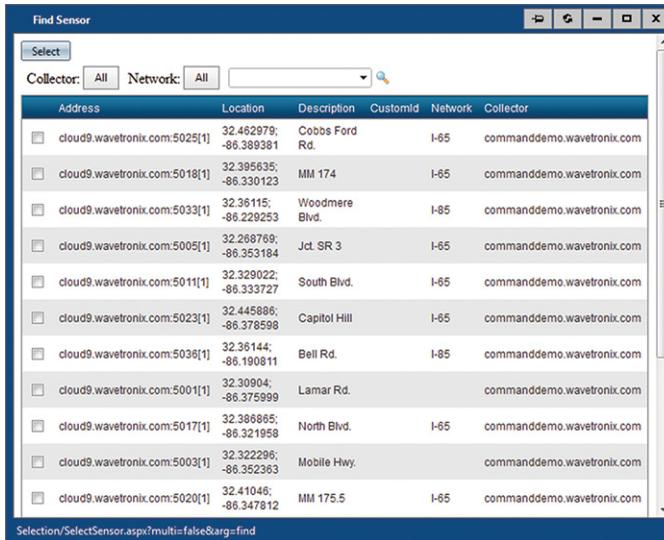
Note

If the detector you selected already appears on the map, its icon will move to the center of the current map view.

Once a detector/sensor is added, it will be selected on the map (meaning it's highlighted in blue) and the Sensor Details box for that detector/sensor will appear beneath the Edit Sensors heading. The Sensor Details window will be discussed later.

Find Sensor on Map

The **Find Sensor on Map** link aids in locating detectors on the map. Clicking on the link brings up the Find Sensor window, shown below.



The screenshot shows a window titled "Find Sensor" with a search interface and a table of sensor data. The search interface includes a "Select" button, "Collector" and "Network" dropdown menus (both set to "All"), and a search input field. The table below lists various sensors with their addresses, locations, descriptions, custom IDs, networks, and collectors.

Address	Location	Description	Customid	Network	Collector
<input type="checkbox"/> cloud9.wavetronix.com:5025[1]	32.462979; -86.389381	Cobbs Ford Rd.		I-65	commanddemo.wavetronix.com
<input type="checkbox"/> cloud9.wavetronix.com:5018[1]	32.395635; -86.330123	MM 174		I-65	commanddemo.wavetronix.com
<input type="checkbox"/> cloud9.wavetronix.com:5033[1]	32.36115; -86.229253	Woodmere Blvd.		I-85	commanddemo.wavetronix.com
<input type="checkbox"/> cloud9.wavetronix.com:5005[1]	32.268769; -86.353184	Jct. SR 3		I-65	commanddemo.wavetronix.com
<input type="checkbox"/> cloud9.wavetronix.com:5011[1]	32.329022; -86.333727	South Blvd.		I-65	commanddemo.wavetronix.com
<input type="checkbox"/> cloud9.wavetronix.com:5023[1]	32.445886; -86.378598	Capitol Hill		I-65	commanddemo.wavetronix.com
<input type="checkbox"/> cloud9.wavetronix.com:5036[1]	32.36144; -86.190811	Bell Rd.		I-85	commanddemo.wavetronix.com
<input type="checkbox"/> cloud9.wavetronix.com:5001[1]	32.30904; -86.375999	Lamar Rd.			commanddemo.wavetronix.com
<input type="checkbox"/> cloud9.wavetronix.com:5017[1]	32.386865; -86.321958	North Blvd.		I-65	commanddemo.wavetronix.com
<input type="checkbox"/> cloud9.wavetronix.com:5003[1]	32.322296; -86.352363	Mobile Hwy.			commanddemo.wavetronix.com
<input type="checkbox"/> cloud9.wavetronix.com:5020[1]	32.41046; -86.347612	MM 175.5		I-65	commanddemo.wavetronix.com

Selection/SelectSensor.aspx?multi=false&arg=find

Figure 3.4 - Find Sensor

The controls in this window function identically to the Select Sensor window discussed above, so that information will not be repeated here; please see the Add Sensors to Map subsection above for information on how to use this window. The two windows differ, however, in that the Select Sensor window allows multiple detectors to be selected at the same time, while the Find Sensor window only allows one detector to be selected at a given time.

The biggest difference is where this information comes from and what Viewpoint does with this. The sensor list in the Find Sensor window is populated with all the detectors/sensors currently present on the map (this includes those detectors/sensors you can't see because they are located outside of the specified extent of the map). Locate the detector/sensor you want to select, click the checkbox next to it, and then click **Select**.

Once you've pressed **Select**, the window will close. The map will center itself over detector/sensor in question, and the detector/sensor will be selected (it will be highlighted in light blue and its Sensor Details window will appear to the right). If the incident was originally located outside the map's specified extent, its icon will be moved to the center of the map's current view.

Note

It's not necessary to use this link; if you can locate the sensor you're interested in on the map, you can simply click on it to move it or bring up the Sensor Details box.

Moving a Sensor

Once a detector/sensor has been selected, you can move it on the map. This is done simply by clicking on the sensor icon and dragging. When the icon is clicked on, it will lift up slightly and an *X* will appear where it was. This *X* is there to help in precise placement of the detector. Drag the icon until the *X* is located where you want the detector to be placed. When you release the mouse, the sensor icon will drop back down to where the *X* is and will be placed in that spot.

It's important to note that moving the detector/sensor has no effect on the detector itself or on its record in Collector. Each time a detector is added to Viewpoint, the appliance makes a local copy of that detector and all changes made to the detector—such as it being moved or deleted—happen only to that local copy.

Sensor Details

Once you have selected a detector/sensor, either by clicking on it or by selecting it in the Select Sensor or Find Sensor windows, the Sensor Details window for that detector will appear (see the figure below). This window has the following options and information:

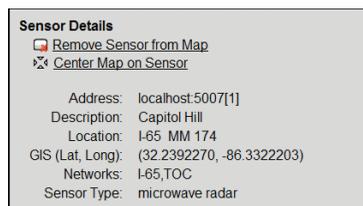


Figure 3.5 – Sensor Details

- **Remove Sensor from Map** – Click on this link to remove the detector/sensor from the map.

Note

This only works for detectors added from Collector; if a detector added via XML files is deleted, it will disappear momentarily but then be re-added to the map as soon as Viewpoint re-checks the XML files. To get rid of such a detector, you need to remove the record of it from the XML file. It will disappear from the map once Viewpoint updates itself.

Removing the detector from the map does not affect it in Collector. Also, be aware that if you delete a detector in Collector, and that detector is present in Viewpoint, it will not be removed from the map, but it will stop collecting data and it will no longer be marked as belonging to a particular Collector (that field will appear blank).

- **Center Map on Sensor** – Click on this link to center the map over the detector/sensor's location.
- **Address** – Shows the detector's IP address.
- **Description** – Displays the description of the detector/sensor, as entered by a user in the detector management software.
- **Location** – Displays the location of the detector/sensor, as entered by a user in the detector management software. Because this is entered by the user, it can display anything, but it's very common for traffic engineers to put addresses or latitude/longitude here.
- **GIS (Lat, Long)** – Shows the latitude and longitude of the detector/sensor's current location on the Viewpoint map. If the icon has been moved, this field will reflect that new latitude and longitude, rather than the latitude and longitude of the physical location of the device.
- **Networks** – Lists which network(s) the detector/sensor belongs to in Collector; if the detector is managed by a 3rd party appliance, this field may be blank.
- **Sensor Type** – Names the type of detector (microwave radar, inductive loop, etc.).

There is no need to save or confirm your changes; once you make any change, Viewpoint will save it.

Cameras

Clicking on the **Cameras** link at the top of the page opens the Edit Cameras screen. This screen allows you to add, move, and delete the map's camera icons; it also provides information about the cameras.

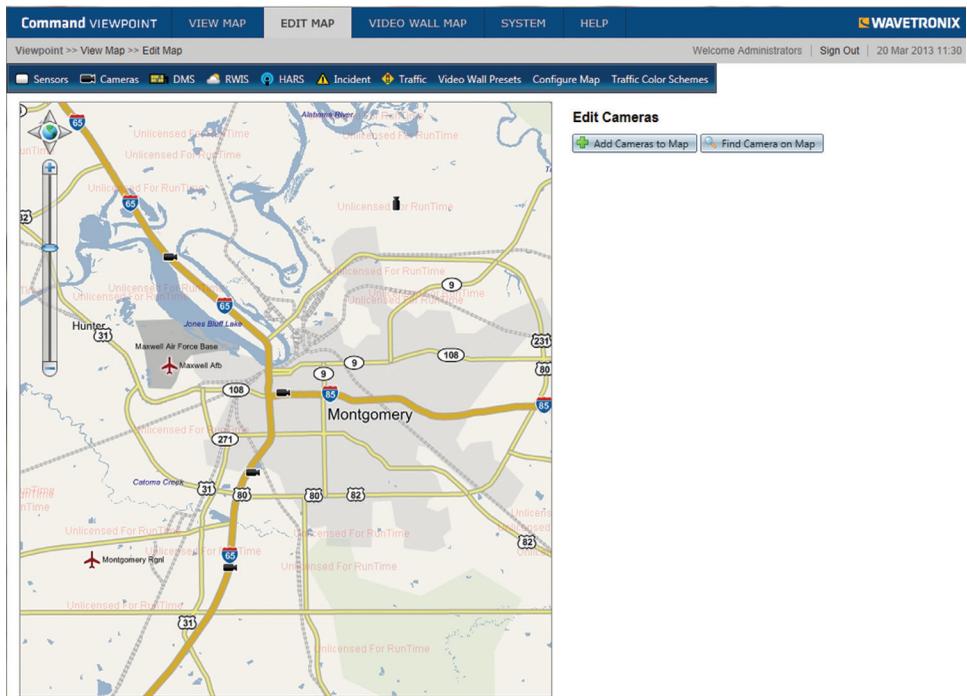


Figure 3.6 – Edit Cameras

When the screen opens, the map will show only the currently configured cameras. To the right are two links, **Add Cameras to Map** and **Find Camera on Map**.

As with sensors, there are two ways cameras can be added to Viewpoint.

- If they are managed by Command Insight, Viewpoint can communicate directly with that appliance to download camera information. In this case, before you started working with sensors you'd need to go into **System > Insight** to add the Collector service; how to do this will be covered in the System chapter.
- If they are managed by a 3rd party appliance, that appliance can regularly create/update XML files and deposit them in the **C: > Program Files > Wavetronix > Viewpoint > Service > Station Data** folder; Viewpoint will read those files every 30 seconds to get the most updated information. In this case you need to configure the 3rd party appliance to create the XML files in the right format so that Viewpoint can read them and deposit the XML files in the correct folder.

In this case, you don't have to manually add the cameras to the map; they will be automatically added as soon as Viewpoint finds their XML files in the Station Data folder. However, it's possible for a detector to be added to the map and yet not appear, if it's configured location is outside the map's specified extent. The Find Sensor on Map link helps locate such detectors.

Note

Setting up both Insight and 3rd party appliances can be done by your organization, but for ease you can also contract with Wavetronix to do the configuration and setup work.

Add Cameras to Map

The **Add Cameras to Map** link allows you to add cameras to the Viewpoint map. You will only use this link with cameras that are managed by an Insight that Viewpoint has been configured to communicate with (as mentioned above, it is not necessary to add cameras from 3rd party software to the map, because Viewpoint will automatically add them as soon as it finds their XML files). Once you've added an Insight service to Viewpoint, all of its cameras are available for use on the map, but you must use the **Add Cameras to Map** link to add them.

Once you've clicked on the link, the Select Camera window will appear.

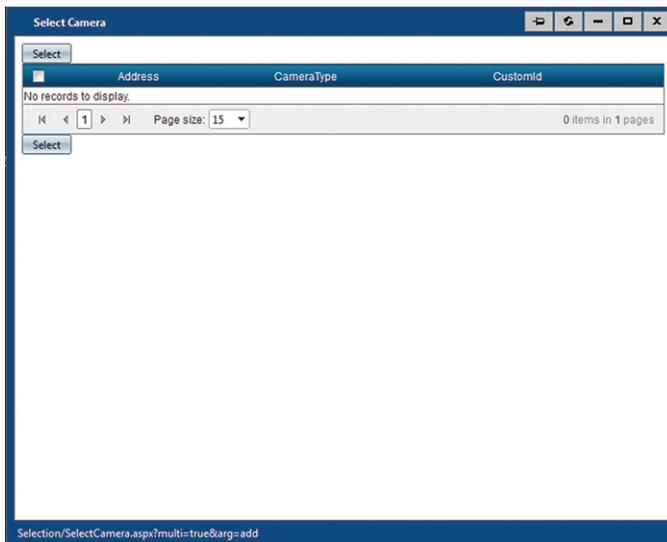


Figure 3.7 – Select Camera

This screen will list all the cameras in the configured Insight. The camera list—the main box that takes up most of the window—shows the following information about each camera in the currently selected Insight:

- **Address** - Shows the IP address of the camera.
- **CameraType** - Shows the brand of the camera.
- **CustomId** - Shows the customer-created description of the camera; as this field is

optional in Insight, it may appear blank here.

To sort the list of the detectors by one of these criteria, click on its name at the top of its column. The whole list will be rearranged alphabetically. Click on the criterion name again to arrange the list in reverse alphabetical order.

All of these fields appear as they are set in Insight; they can't be changed here.

At the bottom of the list are the following controls for paging through the cameras:



Figure 3.8 – Camera List Paging Controls

- **Arrows** – The four arrows on the left let you move between pages. Click the regular arrow (no line in front of it) pointing left to to move backward one page; use the skip arrow (line in front of it) pointing left to move backward to the first page. Click the regular arrow pointing right to move forward one page; use the skip arrow pointing right to move forward to the last page.
- **Page numbers** – The numbers in the middle of the arrows indicate the different pages. Click on a number to go to that page.
- **Page size** – This drop-down menu lets you select how many cameras should be shown on each page: 10, 15, 20 or 50.
- **Item/page information** – The text on the righthand side shows how many cameras total are on the list, and how many pages they are spread across.

In order to add a camera to the map, use the controls discussed to locate that camera, then click on the checkbox next to it. Multiple cameras can be selected at the same, but if you select a camera on one page of the camera list and then navigate to another page, your selection will be cleared; you may need to change the page size to select all the camera desired. If you want to select all cameras on a page, click the checkbox at the very top of the camera list.

Once you've selected your camera(s), click **Select**. The Select Camera window will close. The camera will appear on the map in the location specified by its latitude and longitude settings, unless those settings place it outside the specified extent of the map (more about that later); in that case, the camera will simply appear in the middle of the current view.

Note

If the detector you selected already appears on the map, its icon will move to the center of the current map view.

Once a camera is added, it will be selected on the map (meaning it's highlighted in blue)

and the Camera Details box for that camera will appear beneath the Edit Cameras heading. The Camera Details window will be discussed later.

Find Camera on Map

The **Find Camera on Map** link aids in locating cameras on the map. Clicking on the link brings up the Find Camera window, shown below.

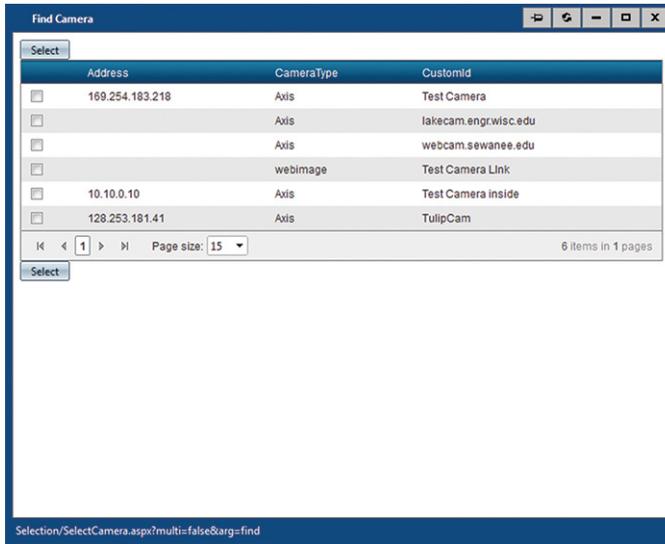


Figure 3.9 – Find Camera

The controls in this window function identically to the Select Camera window discussed above, so that information will not be repeated here; please see the Add Cameras to Map subsection above for information on how to use this window. The two windows differ, however, in that the Select Camera window allows multiple detectors to be selected at the same time, while the Find Camera window only allows one detector to be selected at a given time.

The biggest difference is where this information comes from and what Viewpoint does with this. The camera list in the Find Camera window is populated with all the cameras currently present on the map (this includes those cameras you can't see because they are located outside of the specified extent of the map). Locate the camera you want to select, click the checkbox next to it, and then click **Select**.

Once you've pressed **Select**, the window will close. The map will center itself over camera in question, and the camera will be selected (it will be highlighted in light blue and its Camera Details window will appear to the right). If the incident was originally located outside the map's specified extent, its icon will be moved to the center of the map's current view.

Note

It's not necessary to use this link; if you can locate the camera you're interested in on the map, you can simply click on it to move it or bring up the Camera Details box.

Moving a Camera

Once a camera has been selected, you can move it on the map. This is done simply by clicking on the camera icon and dragging. When the icon is clicked on, it will lift up slightly and an X will appear where it was. This X is there to help in precise placement of the camera. Drag the icon until the X is located where you want the camera to be placed. When you release the mouse, the camera icon will drop back down to where the X is and will be placed in that spot.

It's important to note that moving the camera has no effect on the camera itself or on its record in Insight. Each time a camera is added to Viewpoint, the appliance makes a local copy of that camera and all changes made to the camera—such as it being moved or deleted—happen only to that local copy.

Camera Details

Once you have selected a camera, either by clicking on it or by selecting it in the Select Camera or Find Camera windows, the Camera Details window for that sensor will appear (see the figure below). This window has the following options and information:

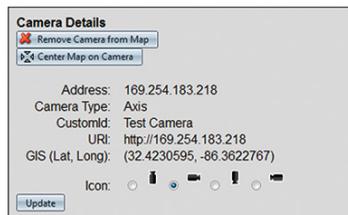


Figure 3.10 – Camera Details

- **Remove Camera from Map** – Click on this link to remove the camera from the map.

Note

This only works for detectors added from Insight; if a camera added via XML files is deleted, it will disappear momentarily but then be re-added to the map as soon as Viewpoint re-checks the XML files. To get rid of such a camera, you need to remove the record of it from the XML file. It will disappear from the map once Viewpoint updates itself.

Removing the camera from the map does not affect it in Insight. Also, be aware that if you delete a camera in Insight, and that camera is present in Viewpoint, it will not be removed from the map, but it will stop collecting data and it will no longer be marked as belonging to a particular Insight (that field will appear blank).

- **Center Map on Camera** - Click on this link to center the map over the camera's location.
- **Address** - Shows the camera's IP address.
- **Camera Type** - Gives the brand of the camera.
- **CustomId** - Displays a description of the camera, as entered by a user in the camera management software.
- **URI** - Shows the uniform resource identifier of the camera. This may be a Web address, IP address, etc.
- **GIS (Lat, Long)** - Shows the latitude and longitude of the camera's current location on the Viewpoint map. If the icon has been moved, this field will reflect that new latitude and longitude, rather than the latitude and longitude of the physical location of the device.
- **Icon** - Allows you to choose the orientation of the camera's icon on the map. Click the radio button next to your choice, then push the Update button.

There is no need to save or confirm your changes; once you make any change, Viewpoint will save it.

DMS

Click on the **DMS** link to open the Edit Dynamic Message Signs screen. This screen allows you to view, move and change the display of the map's dynamic message sign icons; it also provides information about the signs.

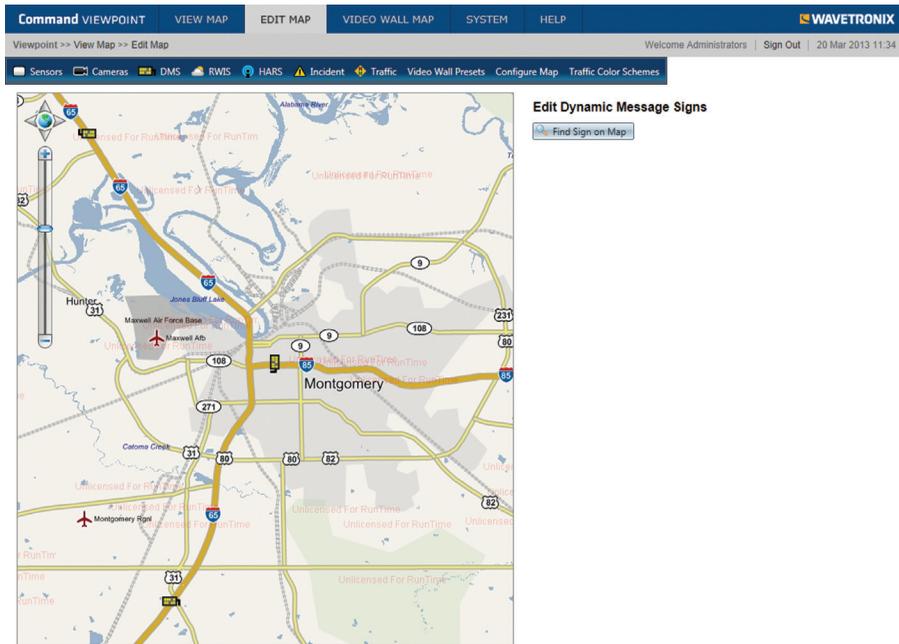


Figure 3.11 – Edit Dynamic Message Signs

When the screen opens, the map will show only the currently configured signs. To the right is a link, **Find Sign on Map**.

Viewpoint does not interface directly with any DMS management software; for a DMS to be added to Viewpoint, the management software must export that sign's data as an XML file and deposit it in **C: > Program Files > Wavetronix > Viewpoint > Service > Station Data**; Viewpoint will read those files every 30 seconds to get the most updated information. In this case you need to configure the 3rd party appliance to create the XML files in the right format so that Viewpoint can read them and deposit the XML files in the correct folder.

The dynamic message signs will be automatically added to the map as soon as Viewpoint finds their XML files in the Station Data folder. However, it's possible for a sign to be added to the map and yet not appear, if its configured location is outside the map's specified extent. The Find Sign on Map link helps locate such signs.

Note

Setting up the 3rd party sign management software can be done by your organization, but for ease you can also contract with Wavetronix to do the configuration and setup work.

Find Sign on Map

The **Find Sign on Map** link aids in locating signs on the map. Clicking on the link brings up the Select Sign window, shown below.

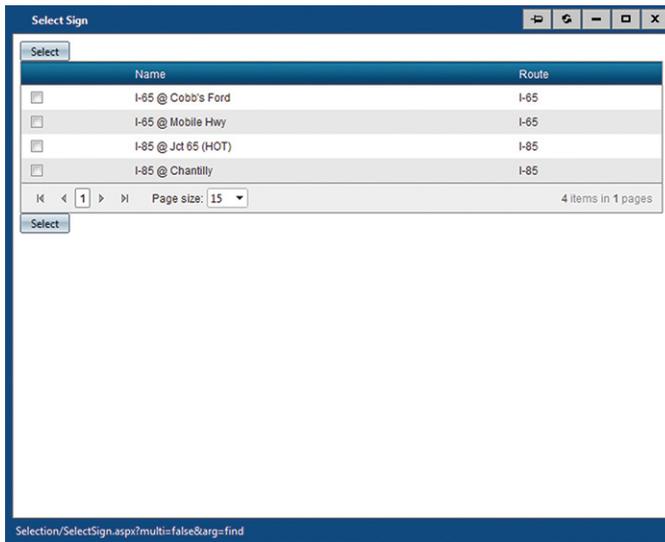


Figure 3.12 – Select Sign

This screen will list all signs currently on the map (this includes those signs you can't see because they are located outside of the specified extent of the map). The sign list—the main box that takes up most of the window—shows the following information about each sign:

- **Name** – Shows the name of the sign, as assigned in the management software.
- **Route** – List the name of the road that the sign is installed on, as assigned in the management software.

To sort the list of the signs by one of these criteria, click on its name at the top of its column. The whole list will be rearranged alphabetically. Click on the criterion name again to arrange the list in reverse alphabetical order.

At the bottom of the list are the following controls for paging through the signs:



Figure 3.13 – Sign List Paging Controls

- **Arrows** – The four arrows on the left let you move between pages. Click the regular arrow (no line in front of it) pointing left to to move backward one page; use the skip arrow (line in front of it) pointing left to move backward to the first page. Click the regular arrow pointing right to move forward one page; use the skip arrow pointing right to move forward to the last page.

- **Page numbers** – The numbers in the middle of the arrows indicate the different pages. Click on a number to go to that page.
- **Page size** – This drop-down menu lets you select how many signs should be shown on each page: 10, 15, 20 or 50.
- **Item/page information** – The text on the righthand side shows how many signs total are on the list, and how many pages they are spread across.

In order to find a sign the map, use the controls discussed to locate that sign in the sign list, then click on the checkbox next to it. Only one sign may be selected at a time.

Locate the sign you want to select, click the checkbox next to it, and then click **Select**. Once you've pressed **Select**, the window will close. The map will center itself over the sign in question, and the sign will be selected (it will be highlighted in light blue and its Sign Details window will appear to the right). If the sign was originally located outside the map's specified extent, its icon will be moved to the center of the map's current view.

Note

It's not necessary to use this link; if you can locate the sign you're interested in on the map, you can simply click on it to move it or bring up the Sign Details box.

Moving a Sign

Once a sign has been selected, you can move it on the map. This is done simply by clicking on the sign icon and dragging. When the icon is clicked on, it will lift up slightly and an X will appear where it was. This X is there to help in precise placement of the sign. Drag the icon until the X is located where you want the sign to be placed. When you release the mouse, the sign icon will drop back down to where the X is and will be placed in that spot.

It's important to note that moving the sign has no effect on the sign itself or on its record in the sign management software. Each time a sign is added to Viewpoint, the appliance makes a local copy of that sign and all changes made to the sign—such as it being moved or deleted—happen only to that local copy.

DMS Details

Once you have selected a sign, either by clicking on it or by selecting it in the Select Sign window, the DMS Details window for that sign will appear (see the figure below). This window has the following options and information:



Figure 3.14 – DMS Details

- **Center Map on Sign** – Click on this link to center the map over the sign’s location.
- **Name** – Shows the name of the sign, as entered by a user in the sign management software.
- **Route** – Displays the name of the road the sign is installed on, as entered by a user in the sign management software.
- **GIS (Lat, Long)** – Shows the latitude and longitude of the sign’s current location on the Viewpoint map. If the icon has been moved, this field will reflect that new latitude and longitude, rather than the latitude and longitude of the physical location of the device.
- **Icon** – Allows you to choose the orientation of the sign’s icon on the map. Click the radio button next to your choice, then push the **Update** button.

There is no need to save or confirm your changes; once you make any change, Viewpoint will save it.

Note

There is no option for deleting a sign here because the only way to delete a sign is to delete the sign’s XML file from the Station Data folder and then stop the sign management software from exporting any new files. Once the sign’s XML file no longer appears in the folder, the sign will disappear from the Viewpoint map.

RWIS

Click on the **RWIS** link to open the Edit RWIS screen. This screen allows you to view and move the map’s road weather information system station icons; it also provides information about the stations.

Find RWIS on Map

The **Find RWIS on Map** link aids in locating stations on the map. Clicking on the link brings up the Select RWIS window, shown below.

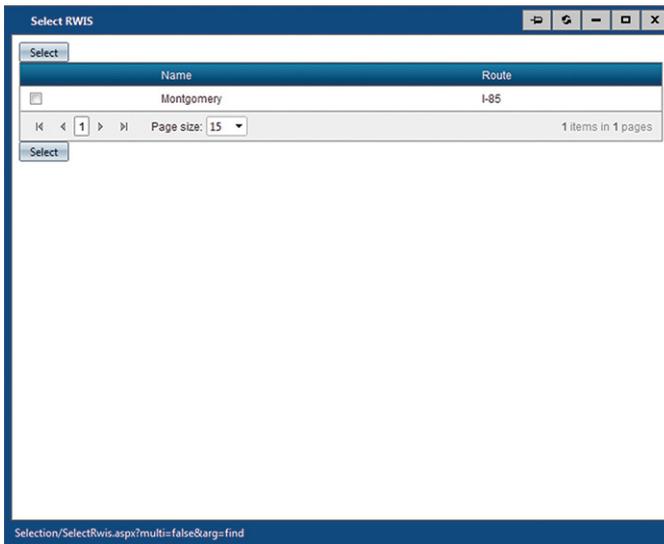


Figure 3.16 – Select RWIS Window

This screen will list all stations currently on the map (this includes those stations you can't see because they are located outside of the specified extent of the map). The stations list—the main box that takes up most of the window—shows the following information about each station:

- **Name** – Shows the name of the station, as assigned in the management software.
- **Route** – Lists the name of the road nearest to the station, as assigned in the management software.

To sort the list of the stations by one of these criteria, click on its name at the top of its column. The whole list will be rearranged alphabetically. Click on the criterion name again to arrange the list in reverse alphabetical order.

At the bottom of the list are the following controls for paging through the stations:



Figure 3.17 – Station List Paging Controls

- **Arrows** – The four arrows on the left let you move between pages. Click the regular arrow (no line in front of it) pointing left to to move backward one page; use the skip arrow (line in front of it) pointing left to move backward to the first page. Click the regular arrow pointing right to move forward one page; use the skip arrow pointing

right to move forward to the last page.

- **Page numbers** – The numbers in the middle of the arrows indicate the different pages. Click on a number to go to that page.
- **Page size** – This drop-down menu lets you select how many stations should be shown on each page: 10, 15, 20 or 50.
- **Item/page information** – The text on the righthand side shows how many stations total are on the list, and how many pages they are spread across.

In order to find a station the map, use the controls discussed to locate that station in the station list, then click on the checkbox next to it. Only one station may be selected at a time.

Locate the station you want to select, click the checkbox next to it, and then click **Select**. Once you've pressed **Select**, the window will close. The map will center itself over the station in question, and the station will be selected (it will be highlighted in light blue and its RWIS Details window will appear to the right). If the station was originally located outside the map's specified extent, its icon will be moved to the center of the map's current view.

Note

It's not necessary to use this link; if you can locate the station you're interested in on the map, you can simply click on it to move it or bring up the Sign Details box.

Moving a Station

Once a station has been selected, you can move it on the map. This is done simply by clicking on the station icon and dragging. When the icon is clicked on, it will lift up slightly and an X will appear where it was. This X is there to help in precise placement of the station. Drag the icon until the X is located where you want the station to be placed. When you release the mouse, the station icon will drop back down to where the X is and will be placed in that spot.

It's important to note that moving the station has no effect on the station itself or on its record in the RWIS management software. Each time a station is added to Viewpoint, the appliance makes a local copy of that station and all changes made to the station—such as it being moved or deleted—happen only to that local copy.

RWIS Details

Once you have selected a station, either by clicking on it or by selecting it in the Select RWIS window, the RWIS Details window for that station will appear (see the figure below). This window has the following options and information:

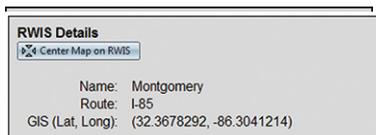


Figure 3.18 – RWIS Details

- **Center Map on RWIS** – Click on this link to center the map over the station's location.
- **Name** – Shows the name of the station, as entered by a user in the RWIS management software.
- **Route** – Displays the name of the road nearest to the station, as entered by a user in the RWIS management software.
- **GIS (Lat, Long)** – Shows the latitude and longitude of the station's current location on the Viewpoint map. If the icon has been moved, this field will reflect that new latitude and longitude, rather than the latitude and longitude of the physical location of the station.

There is no need to save or confirm your changes; once you make any change, Viewpoint will save it.

Note

There is no option for deleting a station here because the only way to delete a station is to delete its XML file from the Station Data folder and then stop the RWIS management software from exporting any new files. Once the station's XML file no longer appears in the folder, the station will disappear from the Viewpoint map.

HARS

Click on the **HARS** link to open the Edit HARS screen (HARS stands for highway advisory radio stations; an entire radio system, and the concept of advisory radio in general, is usually referred to as HAR). This screen allows you to view and move the map's highway advisory radio station icons; it also provides information about the stations.

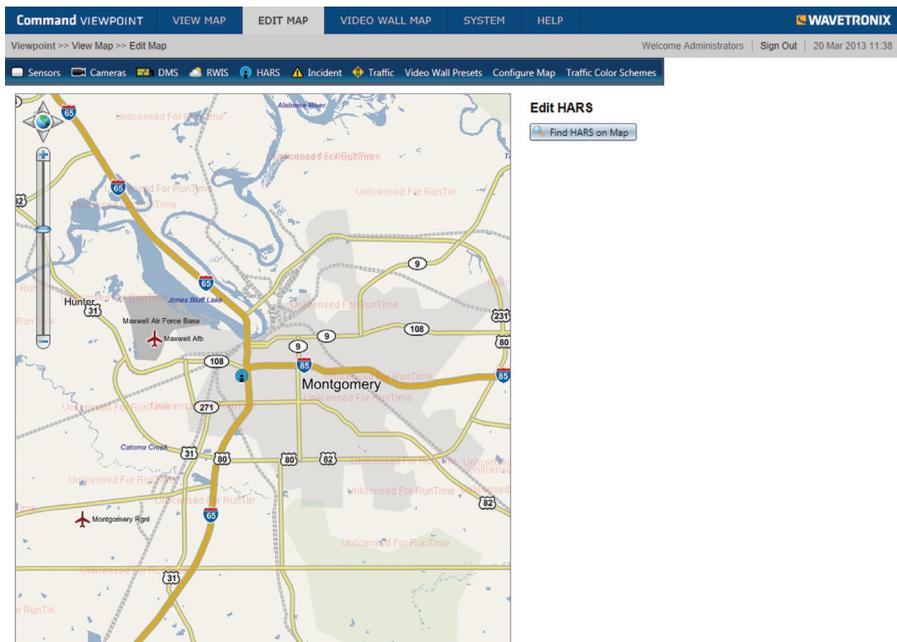


Figure 3.19 – Edit HARS

When the screen opens, the map will show only the currently configured stations. To the right is a link, **Find HARS on Map**.

Viewpoint does not interface directly with any HARS management software; for a HARS to be added to Viewpoint, the management software must export that station's data as an XML file and deposit it in **C: > Program Files > Wavetronix > Viewpoint > Service > Station Data**; Viewpoint will read those files every 30 seconds to get the most updated information. In this case you need to configure the 3rd party appliance to create the XML files in the right format so that Viewpoint can read them and deposit the XML files in the correct folder.

The HARS stations will be automatically added to the map as soon as Viewpoint finds their XML files in the Station Data folder. However, it's possible for a station to be added to the map and yet not appear, if its configured location is outside the map's specified extent. The Find HARS on Map link helps locate such stations.

Note

Setting up the 3rd party sign management software can be done by your organization, but for ease you can also contract with Wavetronix to do the configuration and setup work.

Find HARS on Map

The **Find HARS on Map** link aids in locating stations on the map. Clicking on the link brings up the Select HARS window, shown below.

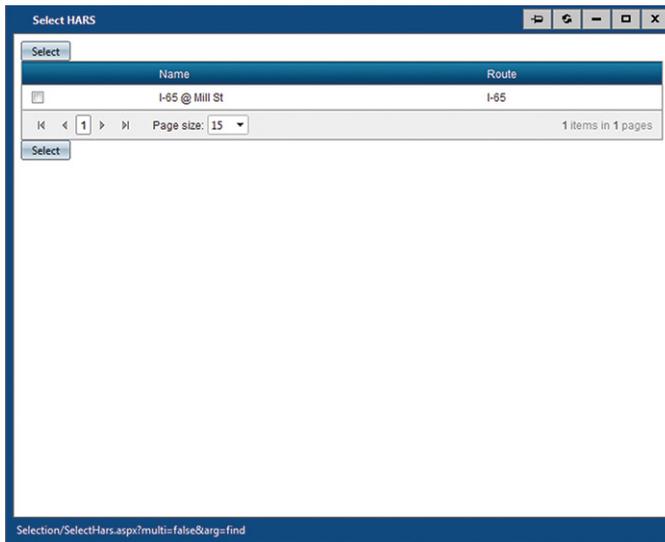


Figure 3.20 – Select HARS

This screen will list all stations currently on the map (this includes those stations you can't see because they are located outside of the specified extent of the map). The stations list—the main box that takes up most of the window—shows the following information about each station:

- **Name** – Shows the name of the station, as assigned in the management software.
- **Route** – Lists the name of the road nearest to the station, as assigned in the management software.

To sort the list of the stations by one of these criteria, click on its name at the top of its column. The whole list will be rearranged alphabetically. Click on the criterion name again to arrange the list in reverse alphabetical order.

At the bottom of the list are the following controls for paging through the stations:



Figure 3.21 – Station List Paging Controls

- **Arrows** – The four arrows on the left let you move between pages. Click the regular arrow (no line in front of it) pointing left to to move backward one page; use the skip arrow (line in front of it) pointing left to move backward to the first page. Click the regular arrow pointing right to move forward one page; use the skip arrow pointing right to move forward to the last page.

- **Page numbers** – The numbers in the middle of the arrows indicate the different pages. Click on a number to go to that page.
- **Page size** – This drop-down menu lets you select how many stations should be shown on each page: 10, 15, 20 or 50.
- **Item/page information** – The text on the righthand side shows how many stations total are on the list, and how many pages they are spread across.

In order to find a station the map, use the controls discussed to locate that station in the station list, then click on the checkbox next to it. Only one station may be selected at a time.

Locate the station you want to select, click the checkbox next to it, and then click **Select**. Once you've pressed **Select**, the window will close. The map will center itself over the station in question, and the station will be selected (it will be highlighted in light blue and its HARS Details window will appear to the right). If the station was originally located outside the map's specified extent, its icon will be moved to the center of the map's current view.

Note

It's not necessary to use this link; if you can locate the station you're interested in on the map, you can simply click on it to move it or bring up the Sign Details box.

Moving a Station

Once a station has been selected, you can move it on the map. This is done simply by clicking on the station icon and dragging. When the icon is clicked on, it will lift up slightly and an X will appear where it was. This X is there to help in precise placement of the station. Drag the icon until the X is located where you want the station to be placed. When you release the mouse, the station icon will drop back down to where the X is and will be placed in that spot.

It's important to note that moving the station has no effect on the station itself or on its record in the HARS management software. Each time a station is added to Viewpoint, the appliance makes a local copy of that station and all changes made to the station—such as it being moved or deleted—happen only to that local copy.

HARS Details

Once you have selected a station, either by clicking on it or by selecting it in the Select HARS window, the HARS Details window for that station will appear (see the figure below). This window has the following options and information:



Figure 3.22 – HARS Details

Center Map on HARS – Click on this link to center the map over the station’s location.

- **Name** – Shows the name of the station, as entered by a user in the HARS management software.
- **Route** – Displays the name of the road nearest to the station, as entered by a user in the HARS management software.
- **GIS (Lat, Long)** – Shows the latitude and longitude of the station’s current location on the Viewpoint map. If the icon has been moved, this field will reflect that new latitude and longitude, rather than the latitude and longitude of the physical location of the station.

There is no need to save or confirm your changes; once you make any change, Viewpoint will save it.

Note

There is no option for deleting a station here because the only way to delete a station is to delete its XML file from the Station Data folder and then stop the HARS management software from exporting any new files. Once the station’s XML file no longer appears in the folder, the station will disappear from the Viewpoint map.

Incident

Click on the **Incident** link to open the Edit Incidents screen. This screen allows you to view and move the incident icons; it also provides information about the incidents.

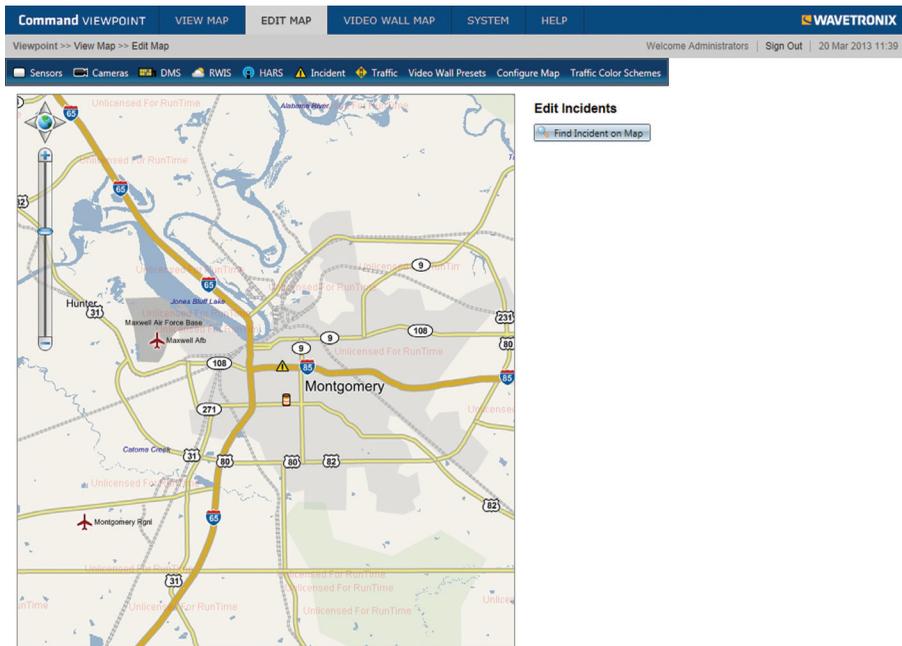


Figure 3.23 – Edit Incidents

When the screen opens, the map will show only the current incidents. To the right is a link, **Find Incident on Map**.

Viewpoint does not interface directly with any incident management software; for an incident to be added to Viewpoint, the management software must export the incident data into XML files and deposit them in **C: > Program Files > Wavetronix > Viewpoint > Service > Incidents**; Viewpoint will read those files every 30 seconds to get the most updated information. In this case you need to configure the 3rd party appliance to create the XML files in the right format so that Viewpoint can read them and deposit the XML files in the correct folder.

The incidents will be automatically added to the map as soon as Viewpoint finds their XML files in the Station Data folder. However, it's possible for an incident to be added to the map and yet not appear, if its configured location is outside the map's specified extent. The **Find Incident on Map** link helps locate such incidents.

Note

Setting up the 3rd party incident management software can be done by your organization, but for ease you can also contract with Wavetronix to do the configuration and setup work.

The map allows incidents to be divided up into three different types:



Planned – Incidents that were expected and planned for, such as road closures due to parades.



Accident – Traffic accidents or any other kinds of unplanned traffic incidents; this includes incidents categorized as accidents, debris, stalled vehicles, etc.



Construction – Planned construction projects.

Find Incident on Map

The **Find Incident on Map** link aids in locating incidents on the map. Clicking on the link brings up the Select Incident window, shown below.

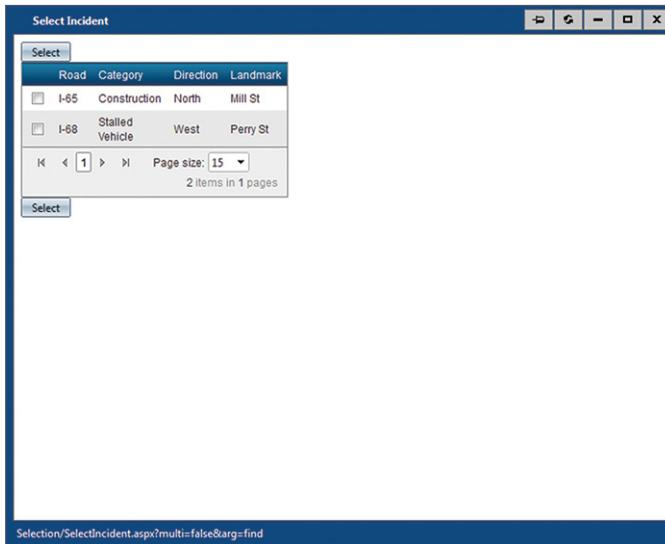


Figure 3.24 – Select Incident

This screen will list all incidents currently on the map (this includes those incidents you can't see because they are located outside of the specified extent of the map). The incident list—the main box that takes up most of the window—shows the following information about each incident:

- **Road** – Shows the name of the road that the incident is on, as well as the nearest mile marker (MM), as entered in the management software.
- **Category** – Lists the category of the incident: construction, accident, debris, etc. as entered in the management software. This field can support any categorization scheme that an incident management appliance might use.
- **Direction** – Shows the direction of traffic in the lanes affected by the incident.
- **Landmark** – Gives the nearest landmark to the incident, as entered in the management

software.

To sort the list of the incidents by one of these criteria, click on its name at the top of its column. The whole list will be rearranged alphabetically. Click on the criterion name again to arrange the list in reverse alphabetical order.

At the bottom of the list are the following controls for paging through the incidents:



Figure 3.25 - Incident List Paging Controls

- **Arrows** - The four arrows on the left let you move between pages. Click the regular arrow (no line in front of it) pointing left to to move backward one page; use the skip arrow (line in front of it) pointing left to move backward to the first page. Click the regular arrow pointing right to move forward one page; use the skip arrow pointing right to move forward to the last page.
- **Page numbers** - The numbers in the middle of the arrows indicate the different pages. Click on a number to go to that page.
- **Page size** - This drop-down menu lets you select how many incidents should be shown on each page: 10, 15, 20 or 50.
- **Item/page information** - The text on the righthand side shows how many incidents total are on the list, and how many pages they are spread across.

In order to find a incident the map, use the controls discussed to locate that incident in the incident list, then click on the checkbox next to it. Only one incident may be selected at a time.

Locate the incident you want to select, click the checkbox next to it, and then click **Select**. Once you've pressed **Select**, the window will close. The map will center itself over the incident in question, and the incident will be selected (it will be highlighted in light blue and its Incident Details window will appear to the right). If the incident was originally located outside the map's specified extent, its icon will be moved to the center of the map's current view.

Note

It's not necessary to use this link; if you can locate the incident you're interested in on the map, you can simply click on it to move it or bring up the Incident Details box.

Moving an Incident

Once a incident has been selected, you can move it on the map. This is done simply by clicking on the incident icon and dragging. When the icon is clicked on, it will lift up

slightly and an X will appear where it was. This X is there to help in precise placement of the incident. Drag the icon until the X is located where you want the incident to be placed. When you release the mouse, the incident icon will drop back down to where the X is and will be placed in that spot.

It's important to note that moving the incident has no effect on the incident itself or on its record in the incident management software. Each time a incident is added to Viewpoint, the appliance makes a local copy of that incident and all changes made to the incident—such as it being moved or deleted—happen only to that local copy.

Incident Details

Once you have selected an incident, either by clicking on it or by selecting it in the Select Incident window, the Incident Details window for that incident will appear (see the figure below). This window has the following options and information:

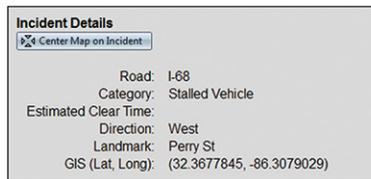


Figure 3.26 – Incident Details

- **Center Map on Incident** – Click on this link to center the map over the incident's location.
- **Road** – Shows the road an incident is on, as well as the nearest mile marker (MM), as entered by a user in the incident management software.
- **Category** – Displays the type of incident: planned, accident, stalled vehicle, etc.
- **Estimated Clear Time** – Shows the time that the incident is expected to be cleared out, as entered in the management software.
- **Direction** – Shows the direction of traffic on the part of the road affected by the incident.
- **Landmark** – Names the nearest landmark, as entered in the incident management software.
- **GIS (Lat, Long)** – Shows the latitude and longitude of the incident's current location on the Viewpoint map. If the icon has been moved, this field will reflect that new latitude and longitude, rather than the latitude and longitude of the physical location of the incident.

There is no need to save or confirm your changes; once you make any change, Viewpoint will save it.

Note

There is no option for deleting an incident here because the only way to delete an incident is to have the incident end in the management software and have the software update the XML file accordingly. Once the incident's XML file no longer appears in the folder, the incident will disappear from the Viewpoint map.

Traffic

A major purpose of the Viewpoint traffic map is to graphically represent the flow of traffic along certain roads. This traffic data is provided to the map by detectors on the roadway; each detector provides the traffic information for a short stretch of road that runs past it. Organizations can set up as many or as few traffic segments as they like, but for the most accurate traffic information, more traffic segments are preferable.

Click on the **Traffic** link to open the Edit Traffic Segments screen. This screen allows you to view traffic segments and their associated detectors on the map, as well as to add, delete and edit traffic segments.

The screenshot shows the Wavetronix Viewpoint software interface. The top navigation bar includes 'Command VIEWPOINT', 'VIEW MAP', 'EDIT MAP', 'VIDEO WALL MAP', 'SYSTEM', and 'HELP'. The 'EDIT MAP' tab is active. Below the navigation bar, there are several icons for different map features: Sensors, Cameras, DMS, RWIS, HARS, Incident, Traffic, Video Wall Presets, Configure Map, and Traffic Color Schemes. The main map area shows a road network around Montgomery, Alabama, with gray bars representing traffic segments. The right-hand panel is titled 'Edit Traffic Segments' and contains a table with the following data:

Name	Edit
<input type="checkbox"/> New Segment 50	Edit
<input type="checkbox"/> New Segment 48	Edit
<input type="checkbox"/> New Segment 40	Edit
<input type="checkbox"/> New Segment 37	Edit
<input type="checkbox"/> New Segment 35	Edit
<input type="checkbox"/> New Segment 24	Edit
<input type="checkbox"/> New Segment 19	Edit
<input type="checkbox"/> New Segment 30	Edit
<input type="checkbox"/> New Segment 61	Edit
<input type="checkbox"/> New Segment 43	Edit
<input type="checkbox"/> New Segment 63	Edit
<input type="checkbox"/> I-85 MM35	Edit
<input type="checkbox"/> New Segment 7	Edit
<input type="checkbox"/> New Segment 49	Edit
<input type="checkbox"/> New Segment 1	Edit

At the bottom of the right-hand panel, there are navigation controls: a list of page numbers (1, 2, 3, 4, ...), a 'Page size:' dropdown menu set to 15, and a '91 items in 7 pages' indicator. Below the table are 'Add' and 'Delete' buttons.

Figure 3.27 – Edit Traffic Segments

When the screen opens, the map will show the current traffic segments (represented by gray bars along the road—the gray bars may look solid all along the road, but if you look

closely you'll see breaks in between each section). On top of each traffic segment is the icon representing the detector that provides the traffic information for that segment.

For all the other edit screens we've discussed in this chapter, you can move the icons and view information about them by clicking on them. This, is not the case for the traffic segments, however; neither traffic segments nor detector icons can be moved using the map.

You can, however, place your cursor over a detector's icon to open a pop-up box (see figure below) to get the following information about that detector.

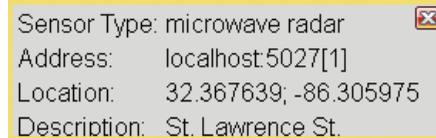


Figure 3.28 - Detector Pop-up

- **Sensor Type** - Shows the kind of detector: microwave radar, acoustic, etc.
- **Address** - Displays the IP address of the detector.
- **Location** - Lists the detector's physical location in longitude/latitude coordinates. If the detector's icon has been moved under the **Sensor** link in the Edit Map screen, this field will give the location of the icon, rather than the physical location of the detector.
- **Description** - Gives a description of the detector as entered by a user in the detector management software.

Edit Traffic Segments

To the right of the map is the traffic segments list, shown below.

Edit Traffic Segments

<input type="checkbox"/>	Name	
<input type="checkbox"/>	New Segment 50	Edit
<input type="checkbox"/>	New Segment 48	Edit
<input type="checkbox"/>	New Segment 40	Edit
<input type="checkbox"/>	New Segment 37	Edit
<input type="checkbox"/>	New Segment 35	Edit
<input type="checkbox"/>	New Segment 24	Edit
<input type="checkbox"/>	New Segment 19	Edit
<input type="checkbox"/>	New Segment 30	Edit
<input type="checkbox"/>	New Segment 61	Edit
<input type="checkbox"/>	New Segment 43	Edit
<input type="checkbox"/>	New Segment 63	Edit
<input type="checkbox"/>	I-85 MM35	Edit
<input type="checkbox"/>	New Segment 7	Edit
<input type="checkbox"/>	New Segment 49	Edit
<input type="checkbox"/>	New Segment 1	Edit

Page size: 15 91 items in 7 pages

Figure 3.29 - Traffic Segments List

This lists all the traffic segments currently configured in Viewpoint. This list allows you to select an incident in order to edit or delete it.

Note

The **Add** button at the bottom allows you to add a new traffic segment to the list; this will be discussed in the the next subsection.

To sort the list of the traffic segments alphabetically by name, click on the word **Name** at the top of the list. Click it name again to arrange the list in reverse alphabetical order.

At the bottom of the list are the following controls for paging through the traffic segments:

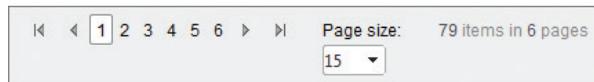


Figure 3.30 – Segment List Paging Controls

- **Arrows** – The four arrows on the left let you move between pages. Click the regular arrow (no line in front of it) pointing left to to move backward one page; use the skip arrow (line in front of it) pointing left to move backward to the first page. Click the regular arrow pointing right to move forward one page; use the skip arrow pointing right to move forward to the last page.
- **Page numbers** – The numbers in the middle of the arrows indicate the different pages. Click on a number to go to that page.
- **Page size** – This drop-down menu lets you select how many incidents should be shown on each page: 10, 15, 20 or 50.
- **Item/page information** – The text on the righthand side shows how many incidents total are on the list, and how many pages they are spread across.

Once you’ve found the segment you want to modify, you can edit or delete it by doing the following:

- To delete a traffic segment, click the checkbox next to it to select it, then press **Delete**. You can delete mutliple traffic sensors at once by selecting mutliple segments’ check-boxes.
- To edit a traffic segment, click the **Edit** link next to it. You can only edit one segment at once. Editing options will be covered in the next subsection.

Note

Selecting a traffic segment in the list will not highlight it in the map or give you any extra information about it. If you need to verify that you're picking the right segment to delete, you'll need to click the **Edit** link next to it so you can check its information and ensure it's the one you want.

Traffic Segment Details

Choosing to add or edit a traffic segment opens the same set of boxes. In both cases, you enter/change the desired information and push **Save**. If you're editing an existing segment, the changes will be saved to that segment; if you're adding a new segment, that segment will appear in the traffic segment list.

To add a traffic segment, press the **Add** button that appears below the traffic segment list. To edit a traffic segment, press the **Edit** link that appears next to that segment in the traffic segment list.

Note

Once you've clicked **Edit** for a particular segment, that segment will be highlighted in yellow on the map.

The boxes that will then appear will be referred to in this document as the Traffic Segment Details area, shown below.

Traffic Segment Details

Name

Sensor

Speed Limit

Color Count 3-Color 5-Color

Sensor Lanes

Included Sensor Lanes

Lane	Dir	Approach	Type
<input checked="" type="checkbox"/>	1	N	North through lanes
<input checked="" type="checkbox"/>	2	N	North through lanes
<input checked="" type="checkbox"/>	3	N	North through lanes
<input checked="" type="checkbox"/>	4	N	North through lanes
<input type="checkbox"/>	5	S	South through lanes
<input type="checkbox"/>	6	S	South through lanes
<input type="checkbox"/>	7	S	South through lanes
<input type="checkbox"/>	8	S	South through lanes

Figure 3.31 – Traffic Segment Details

The first box you'll see is labeled Traffic Segment details. If you're creating a new traffic segment, fill out these fields; if you're editing an existing segment, you can edit whichever

of these need to be changed:

- **Name** – Lets you enter a name for the traffic segment. This is to aid you in identifying different traffic segments.
- **Sensor** – Shows the detector that is providing the traffic information for the segment. If you'd like to select a new detector, click the Sensor button next to the field.

This will open a Select Sensor window identical to the one you use in the **Edit Map > Sensors** area. Because the way to use this screen was already discussed in detail back in the Sensors section of this chapter, it will not be repeated here; please see the Add Sensors to Map subsection of the Sensors section for information on how to find and select a sensor.

Remember that if you know the location of the desired detector on the map, you can hover your cursor over it to get a pop-up containing its address, location and description, then use that information to locate the detector in the sensor list. Once you've found your desired detector, click the Select button. The IP address of the selected detector will appear in the Sensor field.

Note

If a Collector gets deleted from Viewpoint, all of its sensor icons stay on the map but their connection to the real sensor is lost. If a traffic segment is associated with one of these sensors, it will never show any traffic data, i.e. it will always be gray.

- **Speed Limit** – Lets you select the speed limit of the traffic segment, in increments of 5 mph ranging from 25 to 85 mph. There are two reasons for setting this. The first is purely informational, so that people accessing that segment's details area will know the speed limit.

The second reason is more complex. The traffic map shows the flow of traffic on various parts of roads using colors. Green means traffic is flowing smoothly, yellow means some congestion, and red means traffic is very slow or stopped (you can also select a 5-color scheme, as will be discussed below). Each color is associated with a range of speeds; when the detector reports traffic is at a certain speed, the segment will turn that associated color. (What these speeds are can be customized by a user or organization; this will be discussed more later.)

However, it doesn't make sense to have a single color scheme that applies every road; free-flowing traffic is moving at a very different speed on a 25 mph road than on a 75 mph road. For this reason, Viewpoint allows the existence of a different color scheme for each speed limit (actually two different schemes, since each speed limit can have a 3-color scheme and a 5-color scheme). By selecting a speed limit for a traffic segment, you ensure that traffic speeds are being judged by criteria that are logical for that road.

To change the color scheme for a given speed limit, press the Edit Color Scheme but-

ton. This will open the Speed Color Editor window. This window can also be accessed using the Traffic Color Schemes tab at the top of the Edit Map area; because of this, how to use this feature will be discussed in greater detail there. For information on how to use the Speed Color Editor window, please refer to the Traffic Color Schemes section of this chapter.

- **Color Count** - Lets you select whether the traffic segment should use the 3-color scheme or the 5-color scheme for its assigned speed limit.

The lower box has two tabs. The first tab is Included Sensor Lanes.

Lane	Dir	Approach	Type
<input checked="" type="checkbox"/>	1	N	North through lanes
<input checked="" type="checkbox"/>	2	N	North through lanes
<input checked="" type="checkbox"/>	3	N	North through lanes
<input checked="" type="checkbox"/>	4	N	North through lanes
<input type="checkbox"/>	5	S	South through lanes
<input type="checkbox"/>	6	S	South through lanes
<input type="checkbox"/>	7	S	South through lanes
<input type="checkbox"/>	8	S	South through lanes

Figure 3.32 - Included Sensor Lanes

This tab, which is open by default, shows the Included Sensor Lanes box. This box shows all lanes currently configured for the selected sensor (if there isn't one, this box will contain the message "There is no sensor selected"). The list of sensor lanes includes the following information:

- **Lane** - Shows the lane number, as defined in the detector management software. If the detector is a Wavetronix SmartSensor, lanes are usually numbered with 1 being the lane nearest the sensor and the highest number being the farthest lane.
- **Direction** - Gives the direction toward which traffic in that lane is moving.
- **Approach** - Displays the name of the approach the lane has been assigned to in the detector management software. Not all detectors support the use of approaches. If they don't, this column will be blank.
- **Type** - Lists the type of approach, as defined in the detector management software. Not all detectors support the use of approach types. If they don't, this column will be blank.

To the left of each lane is a checkbox; click it to include that lane in the traffic segment. It's common to have two traffic segments over a single stretch of road—one segment for each direction. This allows more precise traffic reporting in case the two sides of the road have differing amounts of congestion.

The second tab is the Points tab.

Sensor Lanes		Points	
Segment Points			
Point#	Latitude	Longitude	
1	32.36189	-86.26097	Remove
2	32.36330	-86.26320	Remove
3	32.36476	-86.26552	Remove
4	32.36562	-86.26702	Remove
5	32.36609	-86.26822	Remove
6	32.36631	-86.26964	Remove
7	32.36622	-86.27153	Remove

Figure 3.33 - Segment Points

This tab opens the Segment Points box. Points are used to define the size and route of the traffic segment. If the traffic segment is along a straight part of the road, only two points are required: one for the beginning and one for the end.

If the road is curved, however, the segment will need to curve as well. This can be done by adding more points to the segment to make it follow the curve. As an example, the segment in the figure below (the upper of the two gray lines shown) has seven points: one for the beginning, one for the end, and five to make the segment follow the curve of the road.

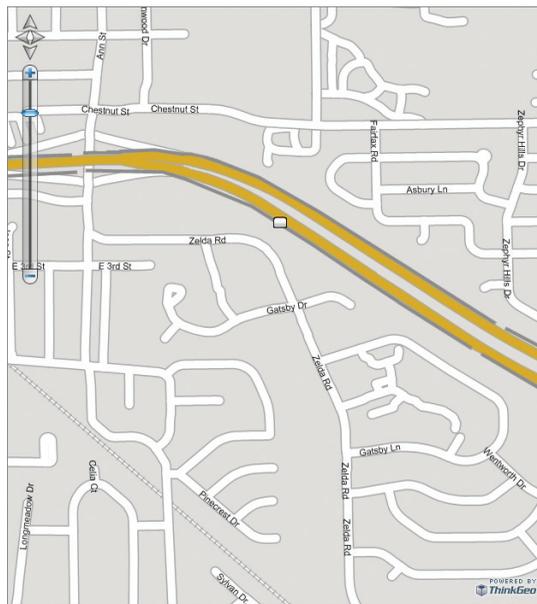


Figure 3.34 - Segment with Multiple Points

Add points by clicking on the map where you want the segments to be (the Traffic Segment Details must be open, but it's not necessary for the Segment Points box to be open). A single point will appear as a yellow dot; once more points have been added, their path will appear as a yellow line. Points must be placed in order, as the traffic segment's shape will follow the points in order of being added.

Once points have been added, they will appear in the Segment Points box. The box lists the following information about the points:

- **Point#** - Shows the number of the point (based on the order it was added in).
- **Latitude/Longitude** - Gives the exact location of the point.

If you need to delete a point, push the **Remove** button next to it in the list. It will disappear from the list and map, and the segment will be redrawn to reflect this. All the points that were below it in the list will move up one number. For a traffic segment to appear in the traffic map after the Edit Map window is closed, it must have at least two points.

Once you've made all the desired changes to the traffic segment, push the **Save** button to save your changes.

Video Wall Presets

Clicking on the **Video Wall Presets** tab opens the Edit Video Wall Presets screen. All the previous settings have directly altered the operator map; this setting is the only one that only affects the video wall map. Video wall presets allow you to set up various views that your video wall map will cycle through. These presets apply whether you open the video wall map before you log in or after you log in.

If you don't set any presets up, the video wall map, when opened, will go to the default view and magnification (as set up in the Configure Map screen, discussed later). If you do use presets, though, you can set them up so that the map cycles through a set of views on a set schedule. This is useful for giving you a close-up view of all areas that the traffic map monitors.

When the Edit Video Wall Presets screen opens, the map on the left will display orange pushpin icons representing the center of each currently configured preset, as shown below.

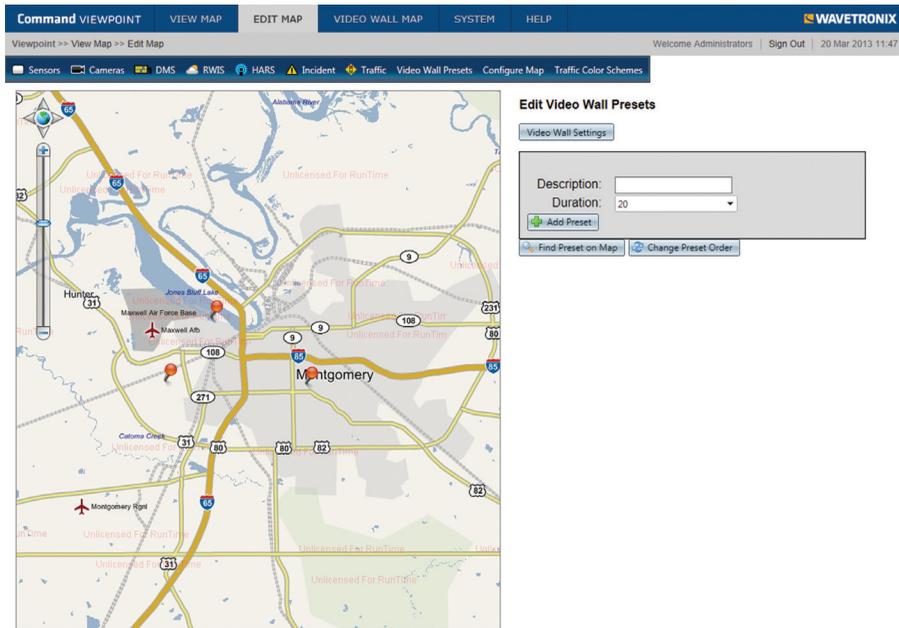


Figure 3.35 - Edit Video Wall Presets

You can move a preset by clicking and dragging its pushpin icon. You can also select a preset by clicking on its icon. When a preset is selected, its pushpin icon will turn blue.

To the right of the map is the Edit Video Wall Presets area. It allows you to find, add, or edit a preset, as well as to change preset order.

Add Preset

To add a preset, first enter the necessary information in the upper box. The description is to help you identify the preset in the future. The duration refers to how many seconds the video wall map will stay at that preset before moving onto the next one; your choices are 20, 40, 60, 80, 100 or 120 seconds.

Once both of these fields are complete, push the **Add Preset** link. This will add the preset to the center of the map's current view. Once it has appeared, click and drag on its pushpin icon until it's centered on the desired location.

Adding a preset will open that preset's Preset Details box, which will allow you to view and change information about that preset. This will be covered later in this section.

Find Preset on Map

The **Find Preset on Map** link aids in locating presets on the map. Once you've clicked on the link, the Select Preset window will appear.

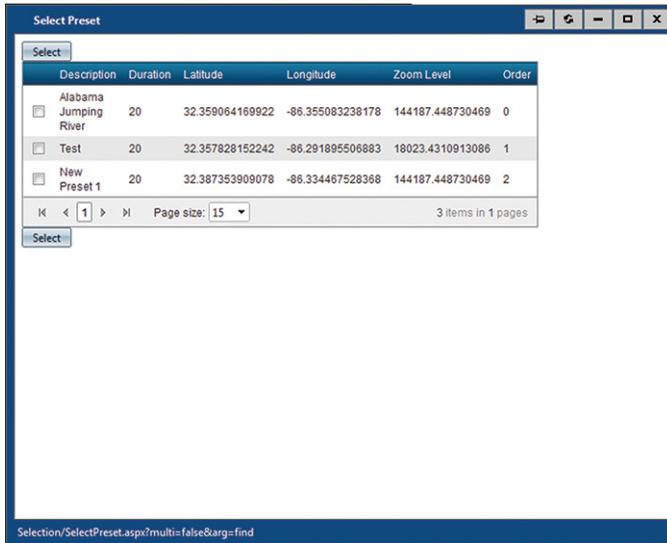


Figure 3.36 - Select Preset

This screen will list all the presets currently configured in Viewpoint. The preset list—the main box that takes up most of the window—shows the following information about each preset:

- **Description** - Shows the description of the preset.
- **Duration** - Lists how many seconds the preset is set to be displayed before the map moves onto the next preset.
- **Latitude/Longitude** - Display the coordinates of the center of the preset.
- **Zoom Level** - Shows the level of magnification that the preset is set to show.
- **Order** - Gives the numerical order of the presets; this is the order that the map will follow as it displays the various presets.

To sort the list of the detectors by one of these criteria, click on its name at the top of its column. The whole list will be rearranged alphabetically. Click on the criterion name again to arrange the list in reverse alphabetical order.

At the bottom of the list are the following controls for paging through the presets:



Figure 3.37 - Preset List Paging Controls

- **Arrows** - The four arrows on the left let you move between pages. Click the regular arrow (no line in front of it) pointing left to to move backward one page; use the skip arrow (line in front of it) pointing left to move backward to the first page. Click the regular arrow pointing right to move forward one page; use the skip arrow pointing right to move forward to the last page.
- **Page numbers** - The numbers in the middle of the arrows indicate the different pages.

Click on a number to go to that page.

- **Page size** - This drop-down menu lets you select how many presets should be shown on each page: 10, 15, 20 or 50.
- **Item/page information** - The text on the righthand side shows how many presets total are on the list, and how many pages they are spread across.

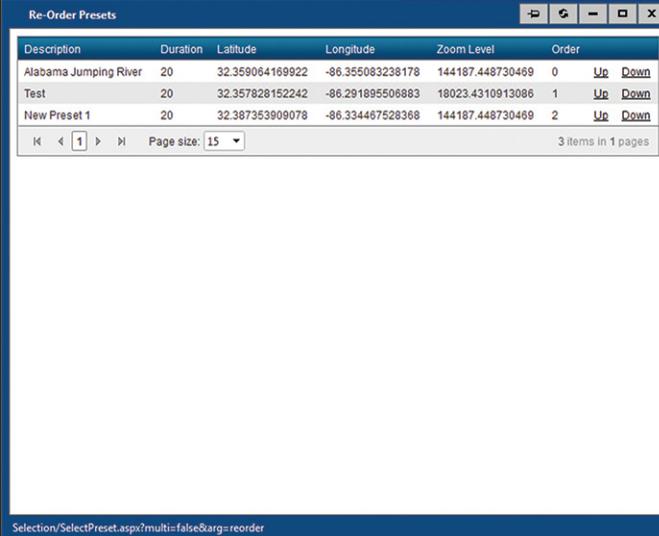
To locate a preset, use the paging controls to find the page it's on. Click the checkbox to the left of the Description column and push the **Select** button. The Select Preset window will close. The map will center itself over the preset's icon.

Once you've found a preset using this method, that preset will be selected on the map (meaning its icon will be blue) and the Preset Details box for that preset will appear to the right of the map. The Preset Details window will be discussed later.

Change Preset Order

The **Change Preset Order** link is located next to the **Find Preset on Map** link. Preset order refers to the order in which the video wall map goes to each preset. By default, the preset order is based on the order in which the presets were created. To alter the order, use the **Change Preset Order** link.

Clicking on the link brings up the Re-Order Presets window, shown below.



Description	Duration	Latitude	Longitude	Zoom Level	Order
Alabama Jumping River	20	32.359064169922	-86.355083238178	144187.448730469	0 Up Down
Test	20	32.357828152242	-86.291895506883	18023.4310913086	1 Up Down
New Preset 1	20	32.387353909078	-86.334467528368	144187.448730469	2 Up Down

Page size: 15 3 items in 1 pages

Figure 3.38 - Re-Order Presets

The Re-Order Presets window looks and functions nearly identically to the Select Preset window, so the information will not be repeated here. To access this information, please see the Find Preset on Map subsection directly above this one.

The main difference is in the links on the far right on each preset. Each preset has two links, marked **Up** and **Down**. To move a preset earlier in the order, press **Up**. To move it later, press **Down**. When you're done, you can close the window using the **X** in the upper righthand corner.

Preset Details

The Preset Details box allows you to view and change information about a selected preset. It does not appear until a preset has been selected. This can be done in several ways: clicking on a preset icon on the map, using the **Find Preset on Map** link and selecting a preset from the list, or adding a preset (when a preset is added it is always considered to have been selected).

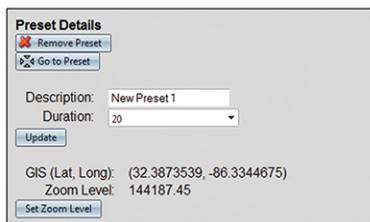


Figure 3.39 - Preset Details

The Preset Details has the following options, fields and information:

- **Remove Preset** - Deletes the preset from the system.
- **Go to Preset** - Centers the map over the preset's icon.
- **Description** - Gives the description of the preset, as entered in the upper box when the preset was first created. If you change this field, save your changes by clicking the **Update** button.
- **Duration** - Shows the duration of the preset, in seconds, as entered in the upper box when the preset was first created. If you change this field, save your changes by clicking the **Update** button.
- **GIS (Lat, Long)** - Displays the coordinates of the center of the preset view.
- **Zoom Level** - Shows the current zoom level of the preset view, given as the number of feet above the surface of the map the simulated view is (the lower the number, the closer the view is to the "ground" and therefore the greater the magnification). The surface of the map is considered to be at sea level.

When you create a preset, the zoom level defaults to the magnification that the map is currently at. If you want to change this, zoom the map in or out to the desired magnification of the preset's view. When the magnification is where you want it, click the **Set Zoom Level** button. The number next to **Zoom Level** will change to reflect the new zoom level.

Configure Map

The **Configure Map** tab allows you to configure the size and default magnification of the map, how the map is viewed, etc. For the most part, both the operator map and the video wall map are based off the same map information—that is, many of the changes you make here will affect the view of both the operator map and the video wall map, since the video wall map (the area and information shown) is based off the operator map.

Click on the **Configure Map** tab to open the Edit Map Configuration window, shown below.

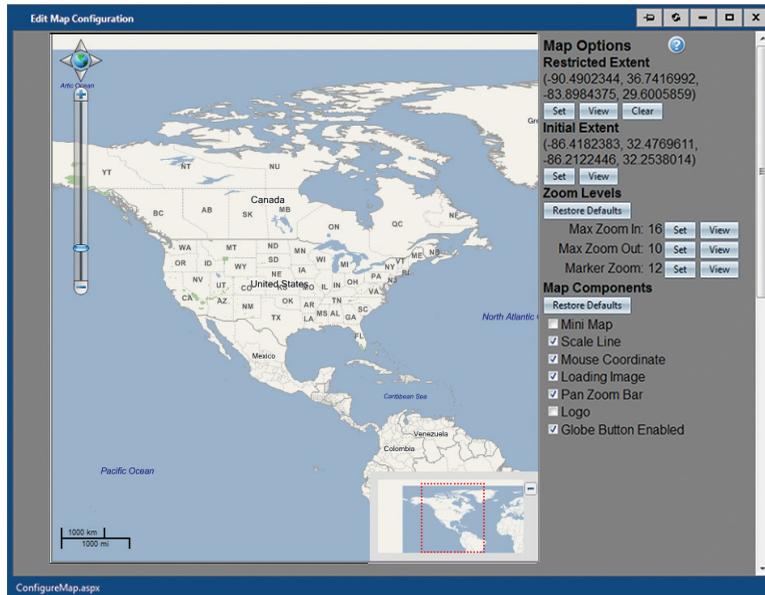


Figure 3.40 – Edit Map Configuration

This window consists of two sections. On the left is the map. This is the only place in the software that the map isn't centered over a default spot and zoomed to a default magnification; this is because this is the spot where you can change the default area and zoom. The view of the map can be controlled using the pan zoom bar and the mini map. See the Map View Controls section in Lesson 1 for how to use these.

On the right is the Map Options area. These options allow you to configure map defaults.

Restricted Extent

The restricted extent of the map is the area of the world that the map is restricted to. The map view can move in and around this area, but it can't show anything outside the boundaries set up here. The area allowed by the restricted extent setup can be any size and is always rectangular.

Beneath the Restricted Extent heading is two lines of coordinates. The upper line gives the longitude and latitude of the northwest (upper lefthand) corner of the restricted extent boundary; the lower line gives the longitude and latitude of the southeast (lower righthand) corner.

Beneath the coordinates are the following three buttons for configuring the restricted extent:

- **Set** - Use this button to set the new restricted extent. First use the map on the left to get a view of the area you want the map to cover. If you want it to cover more ground, zoom out; if you want it to cover less, zoom in. Once you're happy with what the map is showing, press **Set**. The restricted extent will be set to exactly what the map is showing at that moment; the coordinates above will change to reflect the new extent.
- **View** - Use this button to make the map show the currently set restricted extent.
- **Clear** - Use this button to delete the current restricted extent configuration. The coordinates above the buttons will disappear and be replaced with the message "Not Set."

There is no save button; once you've made a change, Viewpoint will save it.

Initial Extent

The initial extent is the area of the map that will displayed by Viewpoint by default when a new screen (at least, any screen containing a map) is opened; also inherent in this is a default magnification. The initial extent can be the same as the restricted extent, or it can be somewhere within that restricted extent. It cannot, however, go outside the restricted extent.

Beneath the Initial Extent heading is two lines of coordinates. The upper line gives the longitude and latitude of the northwest (upper lefthand) corner of the initial extent boundary; the lower line gives the longitude and latitude of the southeast (lower righthand) corner.

Beneath the coordinates are the following two buttons for configuring the initial extent:

- **Set** - Use this button to set the new initial extent. First use the map on the left to get a view of the area you want the map to show by default. If you want it to cover more ground, zoom out; if you want it to cover less, zoom in. Once you're happy with what the map is showing, press **Set**. The initial extent will be set to exactly what the map is showing at that moment; the coordinates above will change to reflect the new extent.
- **View** - Use this button to make the map show the currently set initial extent.

Zoom Levels

This area allows you to set how far in or out the map is allowed to be zoomed. Unlike the Video Wall Presets area, which shows the zoom level in terms of feet above the surface of the map, these are shown in terms of 20 possible zoom levels ranging from very far away (level 1) to very close up (level 20).

The following three zoom settings can be configured.

- **Max Zoom In** - How far in the map can be zoomed.
- **Max Zoom Out** - How far out the map can be zoomed.
- **Marker Zoom** - The zoom level at which icons, such as those for cameras and incidents, will appear.

Each of these zoom settings has two buttons that help you configure the setting:

- **Set** - Use this button to set the new zoom level for the setting in question. First use the map on the left to zoom in or out to the desired magnification. Once you're happy with what the map is showing, press **Set**. The zoom setting will be set to the zoom level on the map at that moment.
- **View** - Use this button to make the map show the currently set zoom level.

Use the **Restore Defaults** button to return all zoom settings to the system defaults (max zoom in: 16, max zoom out: 10, marker zoom: 12).

Map Components

The final part of the Map Options is the Map Components area. This allows you to choose which map view controls and other map elements appear by default on the operator map (the settings in this section have no effect on the video wall map). To choose to include a component, click the checkbox next to it; to keep it from appearing on the map, clear the checkbox next to it.

- **Mini Map** - This is the small map in the lower righthand corner of the main map. Inside the mini map is a dotted red box that you can drag around to quickly pan to different parts of the map. This component is enabled by default.
- **Scale Line** - This is the line in the lower lefthand corner of the map. It gives you a point of reference for distances for the current magnification of the map. This component is enabled by default.
- **Mouse Coordinate** - This is a small line of text in the lower righthand corner of the map that shows you the latitude and longitude of where the cursor currently is over the map. Because this is in the lower righthand corner, it gets covered up if the mini map is enabled and maximized. If both the mini map and the mouse coordinate options are enabled, you'll have to minimize the mini map when you want to see the mouse coordinates. This component is disabled by default.
- **Loading Image** - This is a status bar that appears when the map is in the process of loading, to let you know how close the map is to being done loading. This component is enabled by default.
- **Pan Zoom Bar** - This is the scroll bar and pan arrows in the upper lefthand corner of the map. It aids in viewing different parts of the map, and changing the map's magnification, but it's possible to perform these functions using only your mouse and keyboard. This component is enabled by default.
- **Logo** - This displays the logo of the company that originally created the map technology, ThinkGeo, in the lower righthand corner of the map. This component is disabled

by default.

- **Globe Button Enabled** – The globe button, when enabled, appears in the middle of the pan arrows. Clicking on it returns the view to the entirety of the map (the part inside the restricted extent). This component is disabled by default.

Use the **Restore Defaults** button to restore the map components configuration back to the default settings.

Once you're done configuring the map, close the Edit Map Configuration window; there's no need to save or confirm your changes. However, it may take a few moments after closing the window for the new changes to appear on the map.

Traffic Color Schemes

The last tab, **Traffic Color Schemes**, allows you to change how Viewpoint deals with different speeds of traffic on the operator and video wall maps, as was discussed back in the Traffic section of this chapter.

Both maps shows the flow of traffic on various parts of roads using colors. You can have a 3-color scheme or a 5-color scheme. In a 3-color scheme, green means traffic is flowing smoothly, yellow means some congestion, and red means traffic is very slow or stopped; in a 5-color scheme, there are two more layers (yellow-green between green and yellow, as well as orange between yellow and red). Each color is associated with a range of speeds; when the detector reports traffic is at a certain speed, the segment will turn that associated color.

However, it doesn't make sense to have a single color scheme that applies every road; free-flowing traffic is moving at a very different speed on a 25 mph road than on a 75 mph road. For this reason, Viewpoint allows the existence of a different color scheme for each speed limit (actually two different schemes, since each speed limit can have a 3-color scheme and a 5-color scheme). By selecting a speed limit for a traffic segment, you ensure that traffic speeds are being judged by criteria that are logical for that road. These color schemes are universal; all traffic segments set to a 5-color scheme and 45 mph, for instance, will use the same scheme.

Defaults are set up for all possible color schemes; however, the ranges of speeds associated with each color can be changed using the Speed Color Editor window, shown below. This can be accessed in two ways: by clicking the **Traffic Color Schemes** tab at the top of the Edit Map page, or by clicking the **Edit Color Scheme** button in the Traffic Segment Details area of the Traffic screen. Both of these methods take you to the same screen and work the same way.

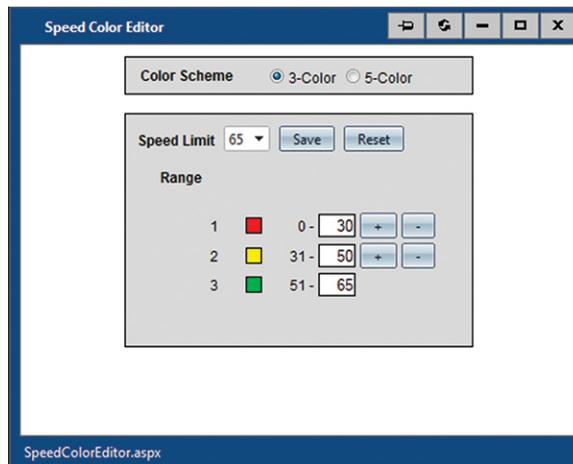


Figure 3.41 – Speed Color Editor

The Speed Color Editor window allows you to change the scheme for a particular speed limit and number of colors. Changing the scheme affects all traffic segments that are set to that particular speed limit and number of colors.

Select which color scheme you want to alter by choosing **3-Color** or **5-Color** from the Color Scheme box at the top of the window, and then by choosing the desired speed limit from the **Speed Limit** drop-down menu.

Note

If you access the Speed Color Editor window from the Traffic Segment Details area, the speed limit will default to the speed limit of the traffic segment you're editing. If you access the editor from the Traffic Color Schemes tab, however, the speed limit will default to 65 mph.

Once you've selected the color scheme to edit, use the Range area to make your desired changes. Each color is displayed next to its associated range. The lower limit of the range isn't editable; for the red range, the lower limit will always be zero, and for all other colors, the lower limit will change to always be 1 mph higher than the upper limit of the next slowest color.

The upper limit can be edited, either by typing in a new number in the text field, or by using the + and – buttons to change the number in increments of 1.

To reset the numbers to what they were the last time the color scheme was saved, press **Reset**. Once you have the ranges set up the way you want them, press **Save**. A message will appear, confirming that the color scheme has been saved, and all traffic segments currently using that color scheme will be updated.

Video Wall Map

In this chapter

- Using the Video Wall Map

In addition to the operator map interface that has been discussed so far, Viewpoint has the video wall map. Access this map by clicking on **Video Wall Map** at the top of the screen. Depending on how your browser is setup, the video wall map may appear in a new tab or a new window.

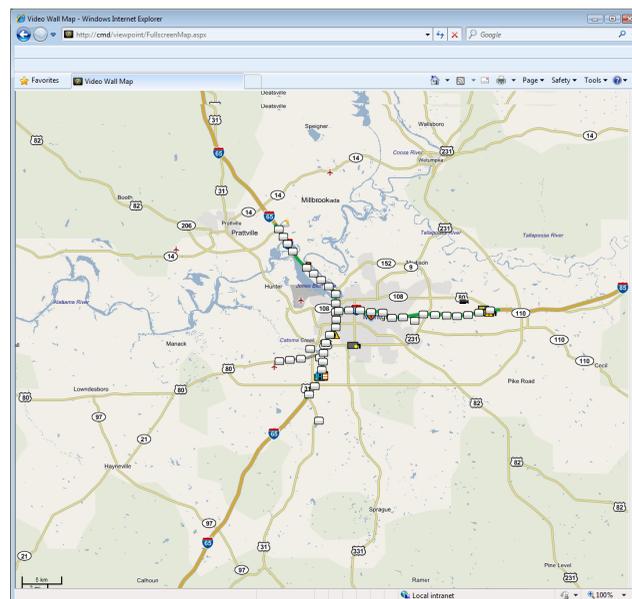


Figure 4.1 - Video Wall Map

Note

The Video Wall Map area can be accessed by anyone who has access to the server that Viewpoint is on, as it doesn't require the users log in. You can also access the video wall map once you've logged into the Viewpoint system.

Using the Video Wall Map

This view takes up the entire browser screen and is designed for use in a video wall in a traffic operations center. It updates itself every 20 seconds to ensure that the information displayed on it is current.

The video wall map lacks the same view controls that the normal map view does. This is because this view is controlled by settings that must be configured in the Map Edit area. All that can be done in the Video Wall Map screen is viewing the video wall map. The scale line in the lower lefthand corner provides reference for scale.

When the video wall map is configured (as will be discussed later), it can be set with several presets; these presets define where the map should be centered, what the magnification should be, and how long the map will remain on that view. This means that the video wall map can cycle through focusing on multiple areas within the map's range.

When you open the Video Wall Map screen, then, the map will show and cycle through different presets according to how it has been configured. As mentioned above, the map updates itself every 20 seconds; if the presets are set to cycle through every 20 seconds, the map will simply update itself every time it cycles, but if the presets are set to longer than 20 seconds, you may see the map reloading and updating itself as you watch.

Note

It is possible to manually move around the video wall map by double-clicking to zoom in and clicking and dragging to pan. However, once the map reloads, either to update itself or to move to a new preset, the view will go back to the defaults.

In this chapter

- Users
- Settings
- Errors
- Journal
- Collector
- Insight

The **System** link in the menu bar allows you to configure how Viewpoint works. When you click on it, the System Settings page will open. In the upper righthand corner is a list of menu options.

Users

The first menu options is **Users**. Click this link to open the Manage Users screen, which allows you to create, modify, and delete users.

Having different logins, or user accounts, for different members of your organization has several advantages. First, different users can be assigned different privileges, so you can ensure that certain users only have the privileges you want them to have. Second, Viewpoint keeps a log of actions taken within the appliance; these actions are labeled with the name of the user who did them. In this way, you can keep track of changes and actions within Viewpoint.

The Manage Users screen allows you to do the following.

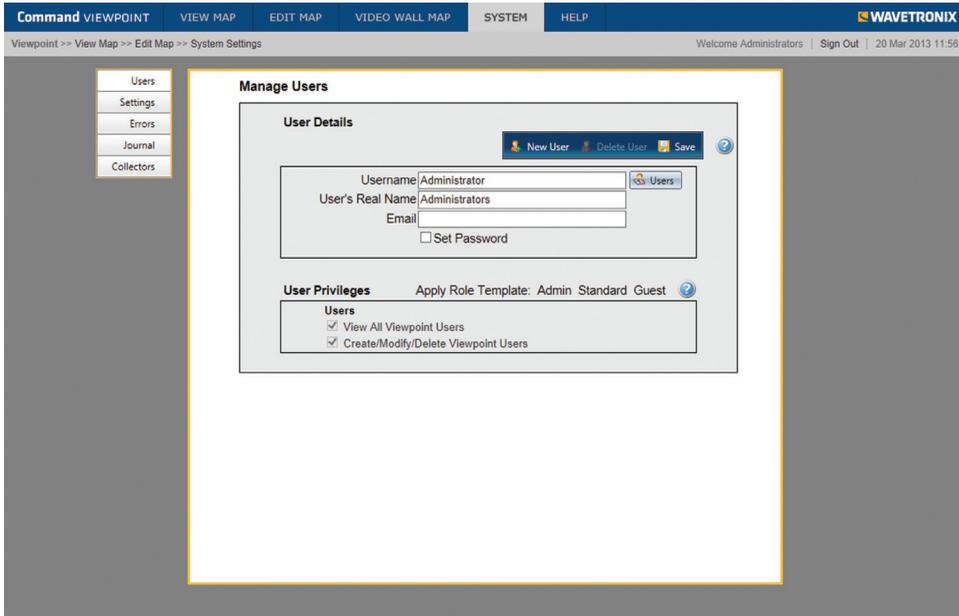


Figure 5.1 – Manage Users

New User

To create a new user, click the **New User** link at the top of the User Details box. The fields will clear and the privileges will return to the default, allowing you to create the new user account.

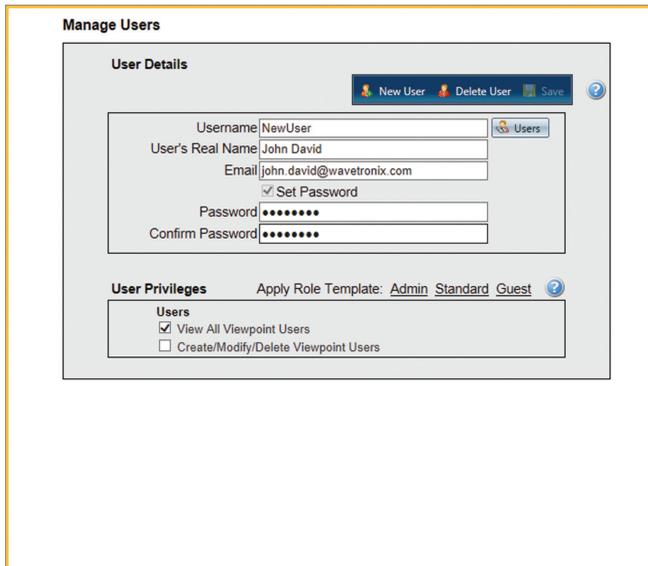


Figure 5.2 – Creating a New User

Note

Only a user who has been given the Create/Modify/Delete Viewpoint Users privilege will be able to create a new user.

To create the new user, fill out the following information for the new account:

- **Username**
- **User's Real name**
- **Email**
- **Password** – Type the password twice, to confirm.

Note

Passwords must be between 6 and 20 characters and can only contain letters and/or numbers.

The user's real name and email address are optional, but the username and password must be filled out or Viewpoint will not save the account.

The second box allows you to set user privileges. Click the checkbox next to the privileges that you want your new user to have:

- **View All Viewpoint Users** – Allows users to view the Select User list.
- **Create/Modify/Delete Viewpoint Users** – Gives users the ability to configure users.

You can also use role templates to quickly apply certain configurations of privileges:

- **Admin** – Gives the user both privileges.
- **Standard** – Gives the user the ability to view all Viewpoint users, but not to create, delete or modify users. This is the default when a new user is created.
- **Guest** – Gives the user no privileges.

Once you have the new user's settings completed, click **Save**.

Edit User

You can also edit an existing user.

Note

Only a user who has been given the Create/Modify/Delete Viewpoint Users privilege will be able to modify an existing user.

To edit a user, you must first locate them in the Select User window. To access this window, click the **Users** link next to the Username field.

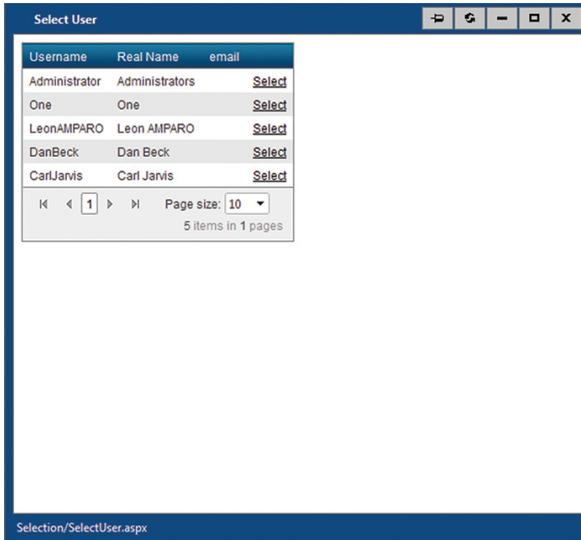


Figure 5.3 – Select User

This screen will list all user accounts that currently exist within Viewpoint. The users list—the main box that takes up most of the window—shows the following information about each user:

- **Username** - Gives each user's username, which is the name he or she uses to log in to Viewpoint.
- **Real Name** - Shows the user's full name.
- **Email** - Lists the user's email address.

To sort the list of the stations by one of these criteria, click on its name at the top of its column. The whole list will be rearranged alphabetically. Click on the criterion name again to arrange the list in reverse alphabetical order.

At the bottom of the list are the following controls for paging through the users:



Figure 5.4 – User List Paging Controls

- **Arrows** - The four arrows on the left let you move between pages. Click the regular arrow (no line in front of it) pointing left to to move backward one page; use the skip arrow (line in front of it) pointing left to move backward to the first page. Click the regular arrow pointing right to move forward one page; use the skip arrow pointing right to move forward to the last page.
- **Page numbers** - The numbers in the middle of the arrows indicate the different pages. Click on a number to go to that page.
- **Page size** - This drop-down menu lets you select how many users should be shown on each page: 10, 15, 20 or 50.
- **Item/page information** - The text on the righthand side shows how many users total are on the list, and how many pages they are spread across.

In order to find a user, use the controls discussed to locate that user in the station list, then click the **Select** link on the far right. The window will close and that user’s information will appear in the User Details area.

Once the user you want to modify has been selected, you can modify the following information about them:

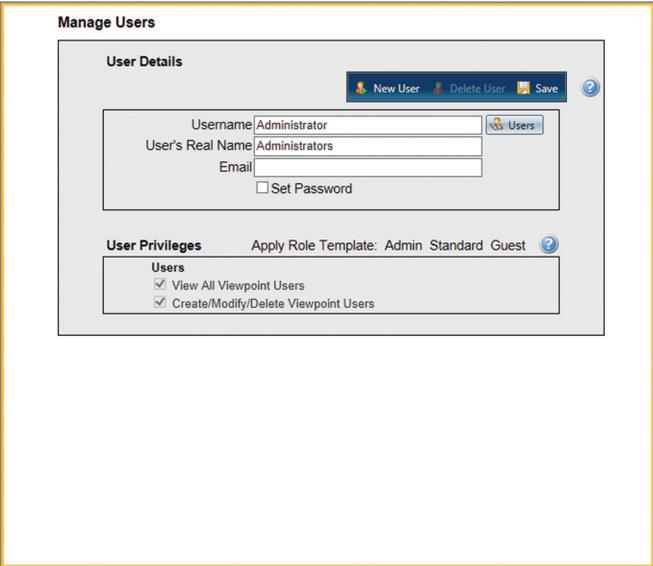


Figure 5.5 - Editing an Existing User

- **Username**
- **User’s Real name**
- **Email**
- **Password** - The password fields only appear when the **Set Password** checkbox is checked. This checkbox is forced on when you’re creating a new user, as giving them a password is required, but when you’re editing a user this is unchecked by default. If you want to change the password, click the checkbox and the password fields will appear.

Note

There must always be one user designated as the administrator. If you edit the administrator account, you'll notice you can't change the user name to be anything but "Administrator."

The second box allows you to change user privileges. Click the checkbox next to the privileges that you want to give the user:

- **View All Viewpoint Users** - Allows users to view the Select User list.
- **Create/Modify/Delete Viewpoint Users** - Gives users the ability to configure users.

You can also use role templates to quickly apply certain configurations of privileges:

- **Admin** - Gives the user both privileges.
- **Standard** - Gives the user the ability to view all Viewpoint users, but not to create, delete or modify users. This is the default when a new user is created.
- **Guest** - Gives the user no privileges.

Note

It's possible to edit certain parts of the user account that you are currently logged into; however, you won't be able to change any privileges in that case.

Once you have the user's settings changed to your satisfaction, click **Save**.

Remove User

To remove a user, select them from the Select User window using the method explained above. Then click the **Remove User** link. Be aware that it's not possible to remove the administrator account.

Settings

Click the **Settings** link to access the settings screen (see the figure below), which allows you to change the following system settings: server installation information, mail settings, log level and user interface.

The screenshot shows a web interface with a sidebar on the left containing links for Users, Settings, Errors, Journal, and Collectors. The main content area is titled 'Settings' and contains four sections:

- Server Installation Information:** Organization: Wavetronix, Location: Training. Includes a 'Save' button and a help icon.
- Mail Settings:** Mail Server Address, Return Address, User name, SMTP Port: 25, Use SSL: No (dropdown), and a checkbox for 'Set Password'. Includes a 'Save' button and a help icon.
- Log Level:** Radio buttons for All, Debug, Info, Warn (default), Error, and Fatal. Includes a 'Save' button and a help icon.
- User Interface:** Timeout in minutes: 60 (with a note '(5-60, default 20)'). Includes a 'Save' button and a help icon.

Figure 5.6 – Settings

Server Installation Information

The Information section allows you to enter details regarding the server installation. This is especially helpful when sending troubleshooting information directly to Wavetronix.

- **Organization** – Lets you enter the name of your organization.
- **Location** – Lets you enter the physical location of the server.

When you've finished entering information, press **Save**.

Mail Settings

This section is currently not used.

Log Level

The Log Level setting controls the type of information that is stored to the rolling log files. These settings refer only to the service logs. There are also webpage logs; how to access these will be covered in the next chapter.

The default is **Warn**. You can also choose **Error** or **Fatal**, for more serious errors, or **Debug** or **Info** for that information. To include all, choose **All**. To change the level, select the radio button next to the desired level and click **Save**.

If you'd like to view these service logs, they can be accessed in two ways:

- Go to the **Help** tab and then to **Support**, and click the link to create troubleshooting information. This will be covered in the next chapter.
- Find the files themselves on the machine where the service is housed. The service logs are found in at **Viewpoint > Service > bin > logs**, in whichever drive, folder, etc. the service is installed. The default is **c:\Program Files\Wavetronix\Viewpoint\Service\bin\logs** or **c:\Program Files (x86)\Wavetronix\Viewpoint\Service\bin\logs** on 64-bit versions of Windows.

User Interface

The User Interface section lets you set how long an idle user can remain logged into the system before being forced to log in again. The timeout can be from 5 to 60 minutes, with the default being 20. When you've chosen a time, press **Save**.

Errors

Click on the **Errors** link to open the System Errors page. This page contains a list of all service errors (webpage errors are only stored in the rolling logs, which will be discussed more in the next chapter).

Timestamp	Thread	Module	Message
3/26/2013 8:33:00 PM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
3/22/2013 10:48:00 PM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/2/2012 9:52:05 AM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/2/2012 7:50:07 PM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/3/2012 2:44:02 AM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/3/2012 5:25:05 PM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/4/2012 2:59:00 AM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/4/2012 11:43:00 AM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/5/2012 12:56:01 AM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/5/2012 5:55:00 AM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/6/2012 2:12:00 AM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/8/2012 2:54:10 PM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/10/2012 1:48:14 PM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/11/2012 5:29:00 PM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data
12/12/2012 5:59:00 AM	StationRefresh	CMDMapsService.exe	Error loading DMS file 'C:\Data

Figure 5.7 – System Errors

This screen will list the last 100 errors currently stored in Viewpoint (errors older than that will be deleted from this error list but will still be stored in the rolling logs, which we'll talk about accessing in the next chapter). The errors list shows the following information about each error:

- **Timestamp** – Shows the time it was recorded.

- **Thread** - Gives the code that was executing when the error occurred. This information is used for troubleshooting.
- **Module** - Names the area in which the error occurred. This information is used for troubleshooting.
- **Message** - Displays the description of the error. This information is used for troubleshooting.

To sort the list of the errors by one of these criteria, click on its name at the top of its column. The whole list will be rearranged alphabetically. Click on the criterion name again to arrange the list in reverse alphabetical order.

At the bottom of the list are the following controls for paging through the errors:



Figure 5.8 - Error List Paging Controls

- **Arrows** - The four arrows on the left let you move between pages. Click the regular arrow (no line in front of it) pointing left to to move backward one page; use the skip arrow (line in front of it) pointing left to move backward to the first page. Click the regular arrow pointing right to move forward one page; use the skip arrow pointing right to move forward to the last page.
- **Page numbers** - The numbers in the middle of the arrows indicate the different pages. Click on a number to go to that page.
- **Page size** - This drop-down menu lets you select how many errors should be shown on each page: 10, 15, 20 or 50.
- **Item/page information** - The text on the righthand side shows how many errors total are on the list, and how many pages they are spread across.

In order to find a particular error, use the controls discussed to locate it. You can then view the whole error message by clicking anywhere on the error’s row. The Error Details window will open, showing the entirety of the error message.

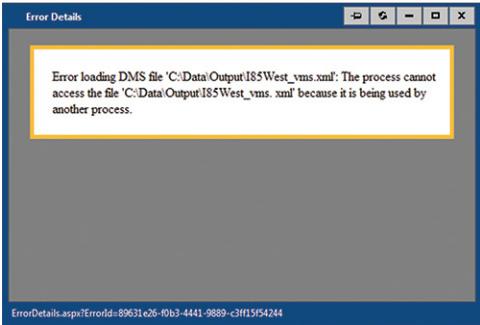


Figure 5.9 - Error Details

The **Filter By Date** option, located above the error list, lets you choose to view only those

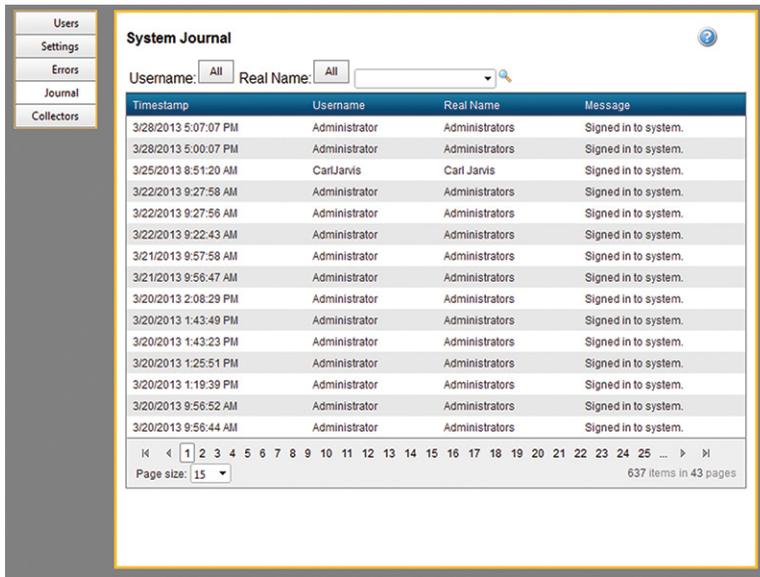
errors that happened within a certain range of dates. To do this, check the checkbox marked **Filter By Date**. Then choose the start and end dates by either typing the date into the text field or by using the drop-down calendar (accessed by clicking on the calendar icon next to the text field). The list will refresh to show only those errors that occurred within that date range.

Note

The start and end dates can be set up in chronological order or in reverse chronological order. For example, 1/1/2011-12/15/2010 will get the same set of results as 12/15/2010-1/1/2011.

Journal

The system journal, accessed via the **Journal** link in the corner menu, is a list of actions taken in Viewpoint by different users. Exactly which actions are recorded can be customized for a particular organization; by default all it logs is users logging in to the system.



The screenshot shows the 'System Journal' interface. On the left is a navigation menu with 'Users', 'Settings', 'Errors', 'Journal', and 'Collectors'. The main area has a title 'System Journal' and a search bar with 'Username: All' and 'Real Name: All'. Below is a table with columns: Timestamp, Username, Real Name, and Message. The table lists 15 entries, all showing 'Administrator' users logging in to the system. At the bottom, there is a pagination control showing 'Page size: 15' and '637 items in 43 pages'.

Timestamp	Username	Real Name	Message
3/28/2013 5:07:07 PM	Administrator	Administrators	Signed in to system.
3/28/2013 5:00:07 PM	Administrator	Administrators	Signed in to system.
3/25/2013 8:51:20 AM	CarlJarvis	Carl Jarvis	Signed in to system.
3/22/2013 9:27:58 AM	Administrator	Administrators	Signed in to system.
3/22/2013 9:27:56 AM	Administrator	Administrators	Signed in to system.
3/22/2013 9:22:43 AM	Administrator	Administrators	Signed in to system.
3/21/2013 9:57:58 AM	Administrator	Administrators	Signed in to system.
3/21/2013 9:56:47 AM	Administrator	Administrators	Signed in to system.
3/20/2013 2:08:29 PM	Administrator	Administrators	Signed in to system.
3/20/2013 1:43:49 PM	Administrator	Administrators	Signed in to system.
3/20/2013 1:43:23 PM	Administrator	Administrators	Signed in to system.
3/20/2013 1:25:51 PM	Administrator	Administrators	Signed in to system.
3/20/2013 1:19:39 PM	Administrator	Administrators	Signed in to system.
3/20/2013 9:56:52 AM	Administrator	Administrators	Signed in to system.
3/20/2013 9:56:44 AM	Administrator	Administrators	Signed in to system.

Figure 5.10 – System Journal

This screen will list the last 100 actions currently stored in Viewpoint (actions older than that will be deleted from the system). The journal shows the following information about each action:

- **Timestamp** – Shows the time it was recorded.
- **Username** – Gives the username of the user whose account was used to perform the

action.

- **Real Name** - Gives the name of the user whose account was used to perform the action.
- **Message** - Describes the action that was taken.

To sort the journal by one of these criteria, click on its name at the top of its column. The whole list will be rearranged alphabetically. Click on the criterion name again to arrange the list in reverse alphabetical order.

At the bottom of the list are the following controls for paging through the journal:



Figure 5.11 - Journal Paging Controls

- **Arrows** - The four arrows on the left let you move between pages. Click the regular arrow (no line in front of it) pointing left to move backward one page; use the skip arrow (line in front of it) pointing left to move backward to the first page. Click the regular arrow pointing right to move forward one page; use the skip arrow pointing right to move forward to the last page.
- **Page numbers** - The numbers in the middle of the arrows indicate the different pages. Click on a number to go to that page.
- **Page size** - This drop-down menu lets you select how many actions should be shown on each page: 10, 15, 20 or 50.
- **Item/page information** - The text on the righthand side shows how many actions total are on the list, and how many pages they are spread across.

In order to find a particular action, use the controls discussed to locate it.

You can filter the journal to show only actions taken by certain users or containing certain text. You do this using the filtering options above the journal box. You can filter in the following ways:

- **Username** - To set the journal only to show actions taken by a particular username, click on the button next to the Username: text (by default, this button says **All**) to open a drop-down list of all usernames currently configured in the system. Clicking on the desired username will execute the search.
- **Real Name** - This works just like the Username option, except it lets you search by the user's real name rather than their username.
- **Search** - The third field/drop-down lets you type in text to search by (it only searches the username, real name and message fields, and not the timestamp). You can also access previous searches by opening the drop-down menu. Once you've typed or selected your filtering terms, click on the  icon to search.

It's also possible to combine searches—for example, search for all instances of a certain user performing a certain action—by using more than one of the controls.

Collectors

The Collectors screen, opened via the **Collectors** link, is where you add Collectors to Viewpoint. This is one way to import detectors into Viewpoint, allowing you to use the **Edit Map** link to add those detectors to the map.

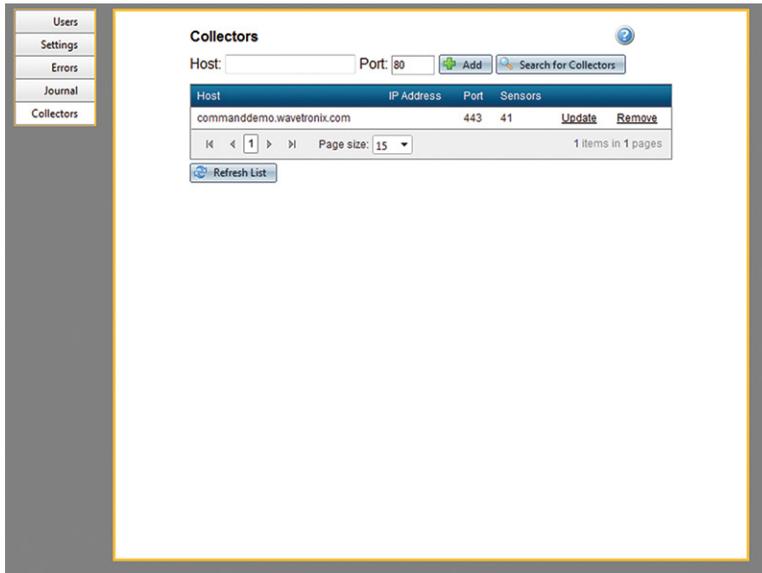


Figure 5.12 - Collectors

Collectors can be added by hand or auto-discovered. To add a Collector by hand, you must know the server that is hosting it. Type in the server in the **Host** text field, then click the **Add** link.

A window will open to tell you when the Collector has been successfully added.

The Collector service you just added will appear in the Collector list, and its sensors will now be available for adding to the traffic map.

If you don't know exactly where Collectors are stored, you can use the **Search for Collectors** link to auto-discover them. For a Collector to be auto-discovered, it must be on the same subnet as the Viewpoint server.

To auto-discover Collectors, click the **Search for Collectors** link. This will bring up the Find Collectors window, shown below.

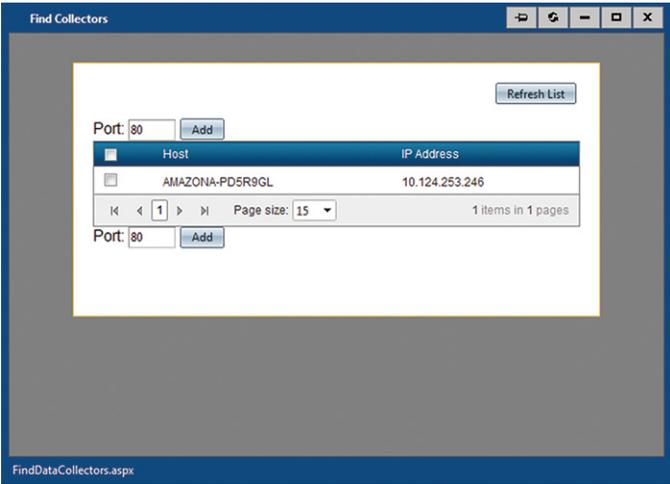


Figure 5.13 – Find Collectors

Viewpoint will search for Collectors and then populate this window with the results. The Collector list shows the following information about each discovered Collector:

- **Host** - Shows the server that the Collector is installed on.
- **IP Address** - Gives the IP address of the service.

To sort the Collector list by one of these criteria, click on its name at the top of its column. The whole list will be rearranged alphabetically. Click on the criterion name again to arrange the list in reverse alphabetical order.

At the bottom of the list are the following controls for paging through the Collector:



Figure 5.14 – Collector List Paging Controls

- **Arrows** - The four arrows on the left let you move between pages. Click the regular arrow (no line in front of it) pointing left to to move backward one page; use the skip arrow (line in front of it) pointing left to move backward to the first page. Click the regular arrow pointing right to move forward one page; use the skip arrow pointing right to move forward to the last page.
- **Page numbers** - The numbers in the middle of the arrows indicate the different pages. Click on a number to go to that page.
- **Page size** - This drop-down menu lets you select how many Collectors should be shown on each page: 10, 15, 20 or 50.
- **Item/page information** - The text on the righthand side shows how many Collectors total are on the list, and how many pages they are spread across.

In order to find a particular action, use the controls discussed to locate it. To add it, click

the checkbox next to it (you can also select multiple Collectors) and push **Add**. The window will tell you that the Collectors have been successfully added, and the Collectors will be added to the system.

If necessary, you can use the **Refresh List** button to make sure the list of Collectors is up-to-date.

Collector List

The other part of the Collectors page is the Collector list, which shows all of the Collectors currently set up in Viewpoint (see figure below).

Host	IP Address	Sensors		
CMD	10.10.1.115	41	Update	Remove
CMDDEMO1	10.10.1.157	52	Update	Remove
CMDQA	10.10.1.118	100	Update	Remove
CMDTRAFFICMAP	10.10.1.146	60	Update	Remove
DTEXPRESS	10.10.1.119	49	Update	Remove

Page size: 15
 5 items in 1 pages

Figure 5.15 – Collector List

This area will list the following information about each Collector:

- **Host** - Shows the server that the Collector is installed on.
- **IP Address** - Gives the IP address of the service.
- **Sensors** - Lists the number of sensors currently in each Data Collector.

To sort the Collector list by one of these criteria, click on its name at the top of its column. The whole list will be rearranged alphabetically. Click on the criterion name again to arrange the list in reverse alphabetical order.

This list has the same paging controls as the Find Sensor window; see the previous subsection for more information.

The links on the far right allow you to do the following with each Collector:

- **Update** - Click the **Update** link to have Viewpoint talk to the Collector and get the most updated information. If you don't manually update, Viewpoint will only retrieve updated information when the service starts, which doesn't happen very often. If you know that a Collector has undergone major changes, use this link.
- **Remove** - Click the **Remove** link to delete the Collector from Viewpoint. Removing a Collector will not delete its associated sensor icons from the traffic map; it will just sever the connection, causing any traffic segments that use one of those sensors to appear gray. If you want to get rid of the sensors on the map, you'll need to delete them manually.

In this chapter

- About
- License Agreement
- Support

Click on the **Help** link in the menu bar to view information about licensing, versions, support and troubleshooting.

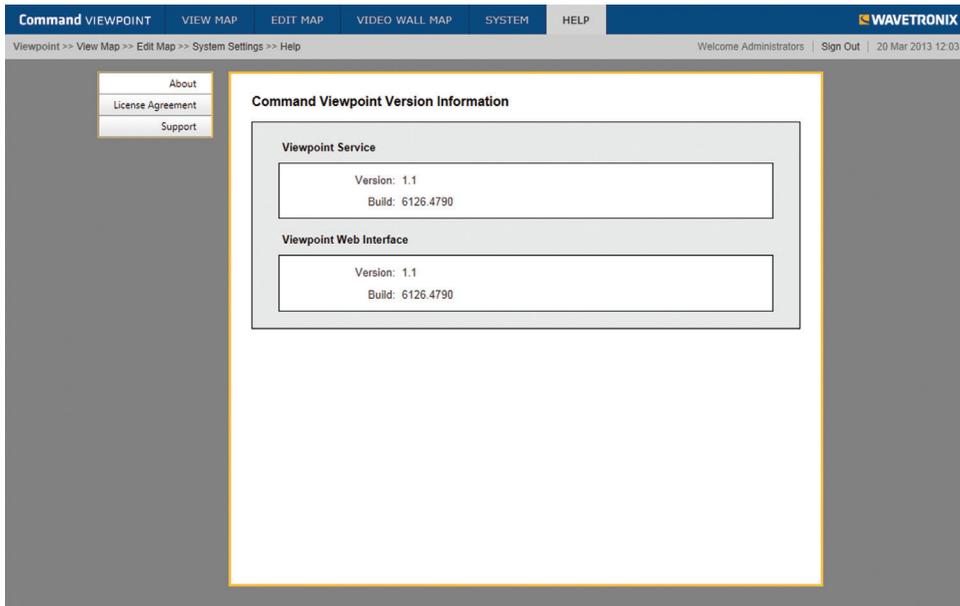
As with the System page, all the screens in the Help area can be accessed via the menu in the left corner.

Note

There's also context-sensitive help available throughout Viewpoint. Throughout the software are icons showing a question mark inside a blue circle; click on one to open a window providing information about that particular screen or area.

About

Click on the **About** link in the menu to access the Viewpoint Version Information screen.



The screenshot shows the Command Viewpoint web interface. The top navigation bar includes links for Command VIEWPOINT, VIEW MAP, EDIT MAP, VIDEO WALL MAP, SYSTEM, and HELP. The WAVETRONIX logo is in the top right corner. Below the navigation bar, there is a breadcrumb trail: Viewpoint >> View Map >> Edit Map >> System Settings >> Help. On the right side of the breadcrumb trail, it says "Welcome Administrators | Sign Out | 20 Mar 2013 12:03". On the left side, there is a vertical menu with links for About, License Agreement, and Support. The main content area is titled "Command Viewpoint Version Information" and contains two sections: "Viewpoint Service" and "Viewpoint Web Interface". Each section displays the version and build information.

Command Viewpoint Version Information	
Viewpoint Service	
Version:	1.1
Build:	6126.4790
Viewpoint Web Interface	
Version:	1.1
Build:	6126.4790

Figure 6.1 – Viewpoint Version Information

This page gives you version and build information for the Viewpoint service and for the Viewpoint Web interface.

License Agreement

Click on the **License Agreement** link to access the entire Command Data Appliance End-user Software License Agreement, shown below.

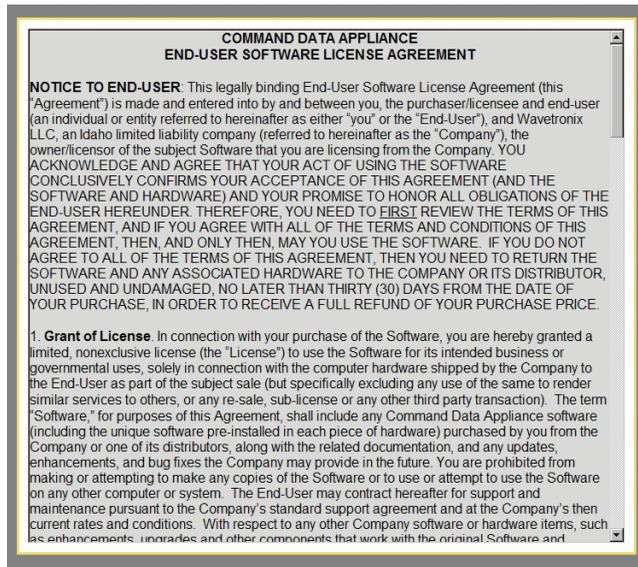


Figure 6.2 – Command Data Appliance End-user Software License Agreement

Support

The **Support** link takes you to the Viewpoint Support page. This page gives you support information and helps you gather troubleshooting information.

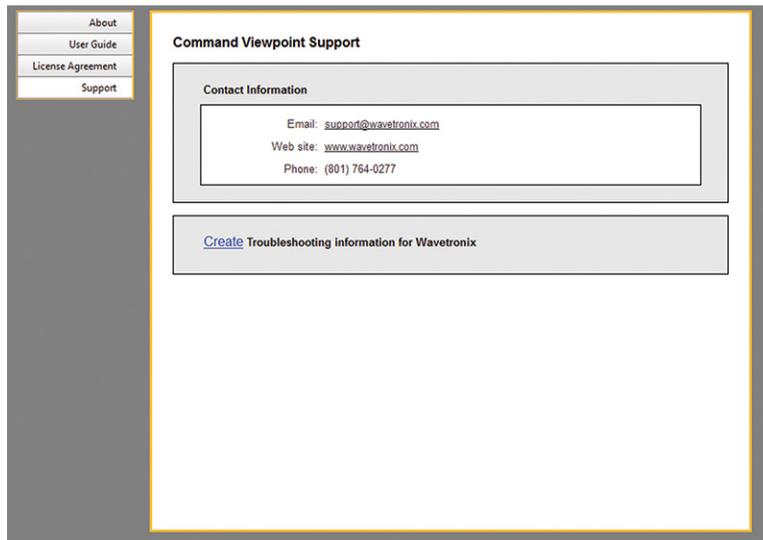


Figure 6.3 – Viewpoint Support

Contact Information

The first box contains contact information for Wavetronix support in the form of an email address, website address, and phone number. The email and website addresses are both clickable links.

Troubleshooting Information

The second box collects troubleshooting information for you to give to Wavetronix in case of a support issue. In the last chapter we talked about Viewpoint's rolling logs and how they store information about varying levels of errors and issues. There are two kinds of rolling logs, one for the service and one for the webpage. Although both are used to collect data about errors that occur, the System > Errors log only shows service errors.

Note

Although the error log doesn't show webpage errors, you can still see them; when a webpage error occurs, the user will immediately get a message about it.

This page, however, gathers data from both the service rolling log and the webpage rolling log. Because of this, using this page to collect troubleshooting information is an easy way to view both rolling logs.

You do this by clicking on the **Create Troubleshooting Information** for Wavetronix link. Viewpoint will create a zip file containing all the webpage and service rolling logs, thereby putting all the error information that may be pertinent to support personnel into one folder.

Performing this action will open a new box on the screen; when Viewpoint is done making the zip file, the following will appear in that box:

- **Support File** - Gives you a link for downloading the zip file.
- **Creation Time** - Gives the date and time that the support file was created. This link will remain available until you create another one, even if you log out of Viewpoint.

Note

You can also access the rolling logs manually on the machine where the Viewpoint service is installed. To access the service logs, go to wherever the service is installed (usually C:\Program Files\Wavetronix) and then to Viewpoint\Service\bin\logs.

For webpage logs, go to where the webpages are installed (usually C:\inetpub\wwwroot) and then to Viewpoint\logs.

By default (although this can be changed by Wavetronix or an experienced programmer), each kind of rolling log allows log files of 3 MB each. Once a log file is full, it is renumbered and a new one is started. There can be a total of 25 such log files, with number 1 being the newest and number 25 being the oldest. Files older than 25 are deleted.