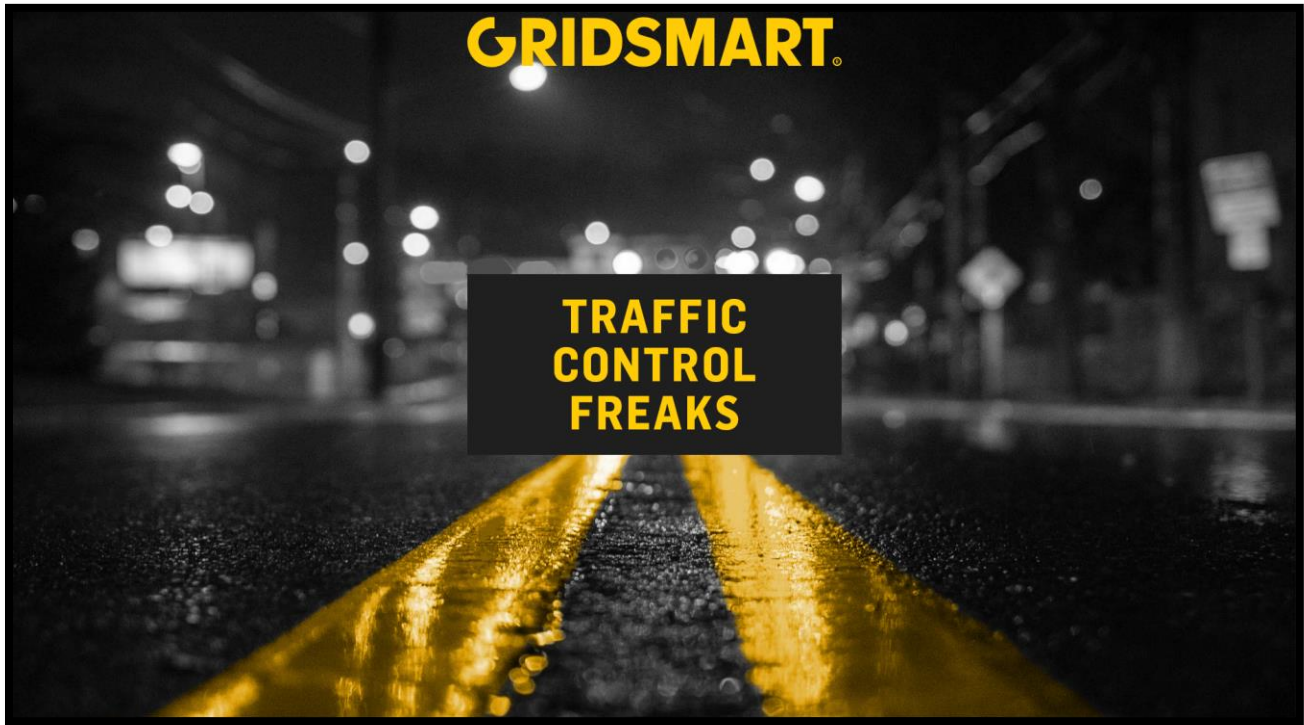


USER GUIDE

v6.8.1

v6.8.1 Changelog

- **FIX:** Fixes known issue (<https://support.gridsmart.com/discussions/topics/27000001170>) by ensuring outputs are always shown properly for sites prior to version 6.8
- **FIX:** Ensure outputs are applied when Recommissioning to a site prior to version 6.8



Welcome to GRIDSMART!

GRIDSMART is your eye in the sky for actuation and data collection at intersections and on highways. Our unique solution tracks cars, trucks and bicycles while recording turning movements, vehicle counts, incidents and classifications.

The GRIDSMART software, commonly referred to as the Client, lets you manage intersections in real-time. The Client is typically [installed](#) on a laptop and used to configure the GRIDSMART Processor on-site during installation. If your cabinet is on a network, the Client can remotely access your system to [view](#) and [configure sites](#), [replay recorded video](#), [calls and phases](#), [generate reports](#) and [email alerts](#).

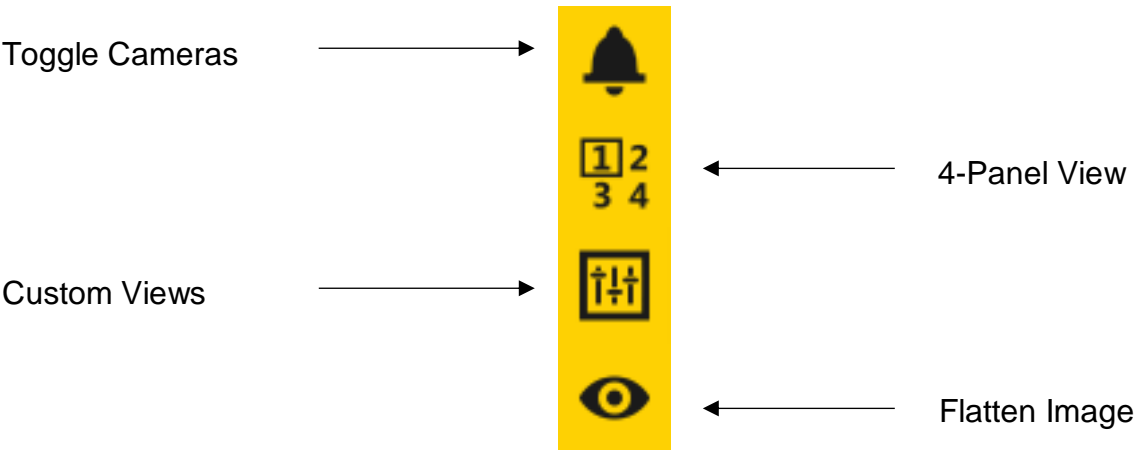
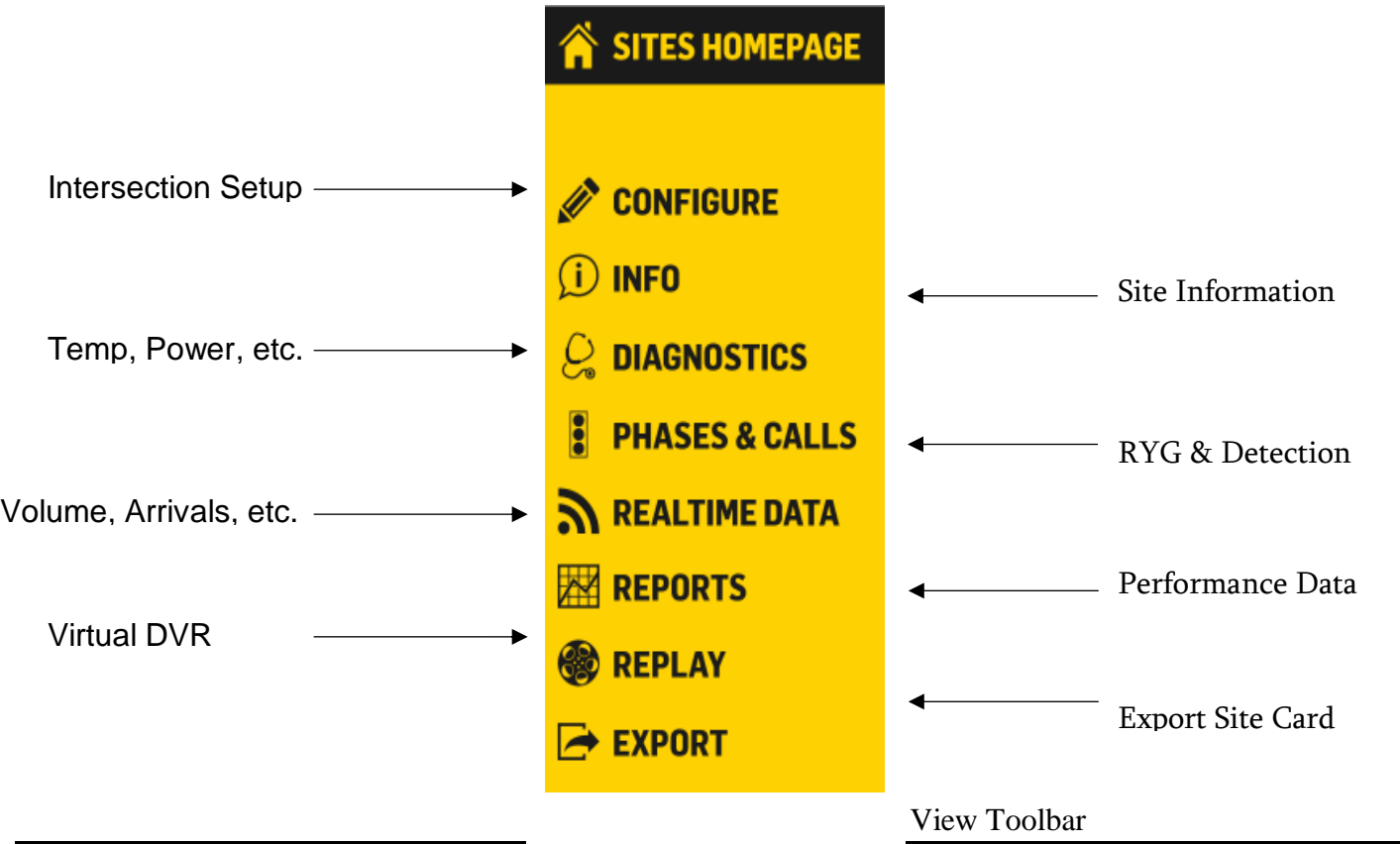


Your GRIDSMART system ships with an unlimited number of Client licenses, so feel free to install it on any number of computers in your office or traffic operations center.

Configuration changes made with the Client are easily undone. Nothing affects the operation of your site until you explicitly [publish](#) your changes. Even then, you can easily [revert](#) a site to a previous configuration, or even [reset](#) the GRIDSMART Processor to its original factory settings.

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CLIENT INSTALLATION & CONFIGURATION

Download the Client

You can download the latest version of the GRIDSMART Client from GRIDSMART Cloud.

1. Open a web browser and visit gridsmart.com/support.
2. Sign in to GRIDSMART Cloud, or click Sign Up to create a new account.

Welcome to GRIDSMART® Cloud, the online support center for [GRIDSMART](#) installers and customers.

Email

Password

Log In

Need an account? [Sign Up](#)

Forgot your password? [Reset Password](#)

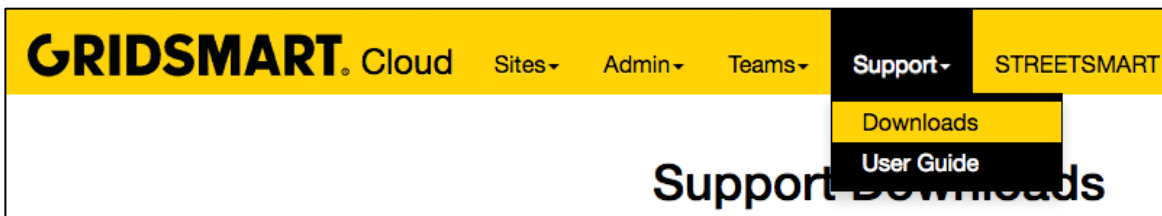
Want to talk? Call us at +1 866.652.5347

Or email us at support@gridsmart.com

Just want the [User Guide](#)?

Here, you can always access the [GRIDSMART User Guide](#). When you log in above, you can access all your backed up site configurations from the GRIDSMART Client as well as the support downloads.

3. Click the Support dropdown, then click Downloads.



4. Select Client Installer and download the executable file.

Support Downloads

[Changelog](#)

Firmware Update Notice

DO NOT UNPLUG OR MANIPULATE THE SYSTEM DURING AN UPDATE. Updates for GS2 may often include firmware updates that put the system into a special programming mode. All front panel LEDs will go dark and the fan will operate loudly at its highest speed. This is expected. After roughly 30 seconds, the fan will return to normal speed. The phase LEDs will turn all red as the system exits the special programming mode and then all green when the update is complete.

Releases

6.6

Name	Description	Priority	Published
v6.6 Client Installer	Download and then double-click the *.exe to install. Fully backward-compatible, including Publish, with Processors running GRIDSMART 4.0 or later.	1	<input checked="" type="checkbox"/>
v6.6 Update Stick	Download, unzip the archive, and then put the extracted contents (folder aldis, folder 84a50db5-98be-4c8d-a79d-addab0a93799, and GridSmartClientInstaller.exe) at the root level of a freshly formatted USB stick. Processors must be running GRIDSMART 3.2 Firmware or later to be updated.	2	<input checked="" type="checkbox"/>

Install the GRIDSMART Client

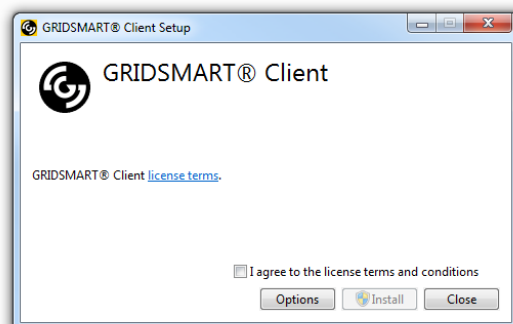


Stay connected to the Internet while you install the Client on your laptop or desktop computer.



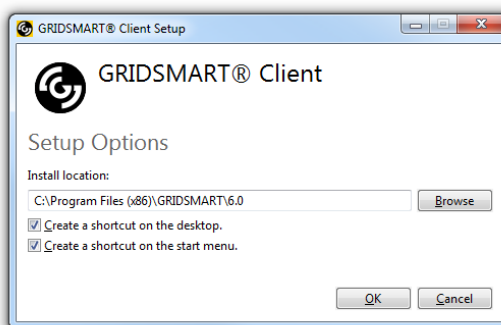
The GRIDSMART Client is already installed on the GRIDSMART Processor. Please do not install the Client or any other software on the Processor.

Double-click the Setup Program or MSI Installer to open the GRIDSMART Client Setup.

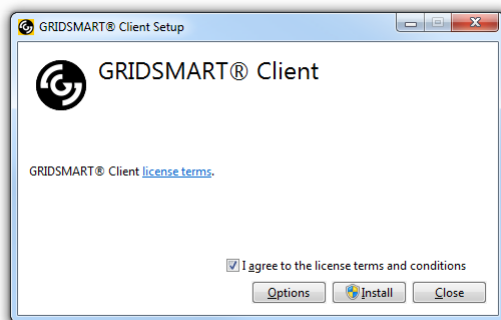


The setup program creates shortcuts to the GRIDSMART Client on your Start Menu and Desktop.

To change the install directory or remove shortcuts, click Options.

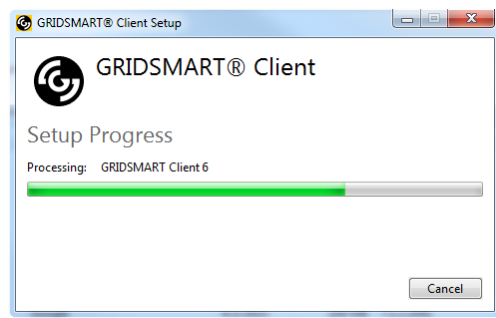


Accept the Terms and Conditions, then click Install.

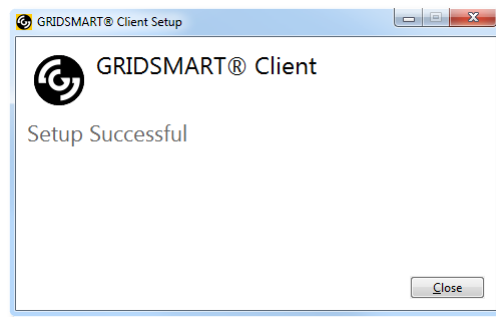


A progress bar indicates the setup status.

If you click Cancel, the GRIDSMART Client program will not be successfully installed.



A system restart may be required to complete the installation.



Configure a New Site from the Factory Default Setup

Launch the Client and double click the Factory Default Site Card. The [Site Menu](#) appears when the mouse hovers over the left-hand side of the Site View screen.



Click the Configure pencil on the Site Menu to start the setup wizard.



You must have a Camera connected to the System and have a picture to see the Configure option

Location

Enter the site location information.

For U.S. and Canadian sites, the Postal Code automatically populates the City, State, County, Latitude and Longitude fields.

If you are outside the US and Canada manually enter the Latitude and Longitude.

Location		Control		Network		Date/Time		Passwords		Modules	
Postal Code	37932	City	Knoxville	Country	USA						
Street 1	Hardin Valley	County	Knox	Latitude	35.92						
Street 2	Cherahala	State	TN	Longitude	-84.2						
Metric		<input type="checkbox"/>		Left Side Driving		<input type="checkbox"/>					
<div>Close</div>											

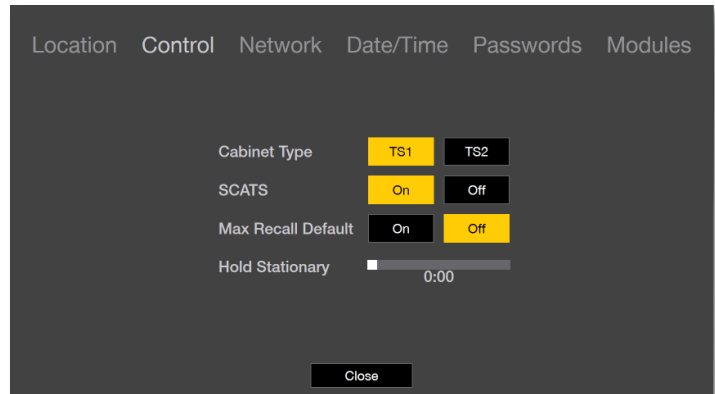
Control

The Control Mode will be automatically selected based on the installed Option Card, TS1, TS2 or ITS.

Generally, TS1 mode will also be used for 170/2070 and SCATS configurations.

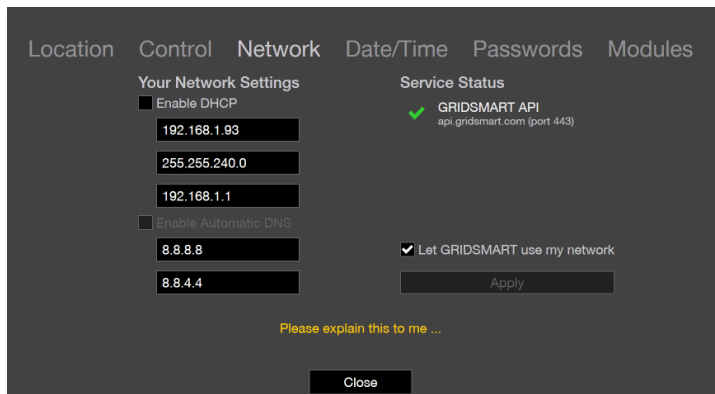
The SCATS (Sydney Coordinated Adaptive Traffic System) option is available in the Control settings for TS1 sites licensed for the Performance Module.

BIU and SIU selections can be made at the time you draw the zones and assign outputs.



Network

To add the GRIDSMART System to a network for remote monitoring and management, simply add your network settings and verify the system can communicate with api.gridsmart.com over port 443.



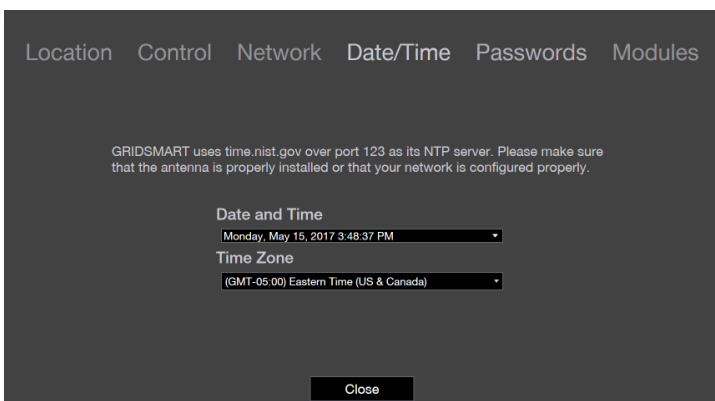
Date and Time

Select the Date, Time and the Time Zone. The factory default is Eastern Time (US & Canada).



Date and time are important parameters for the Engine and must be set correctly for the site location.

The Processor will automatically adjust the time to the configured Time Server.

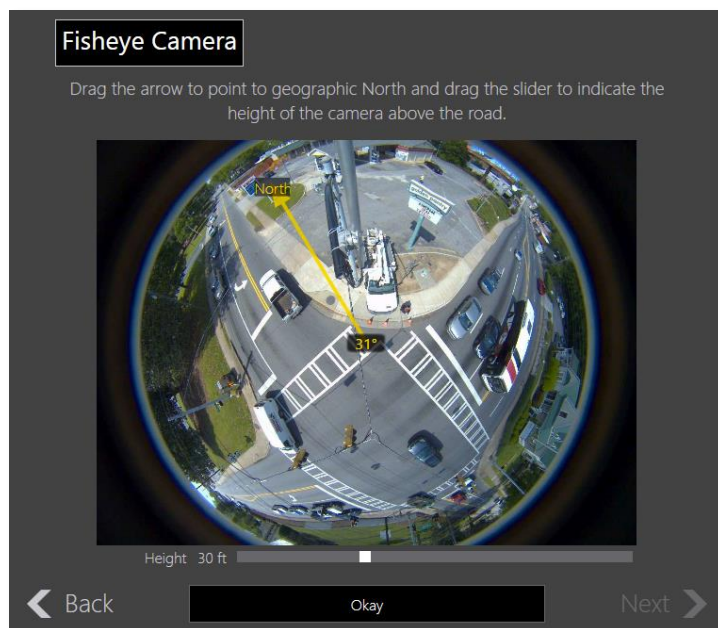


North and Height

Set the North heading. Stand beneath the Camera with a compass and identify a structure in the North heading line of site. Click and drag the North arrow to point to that structure.

Measure the Camera height from the bottom of the camera housing to the roadway. Use the slider to set the correct height. We recommend at least 30 feet.

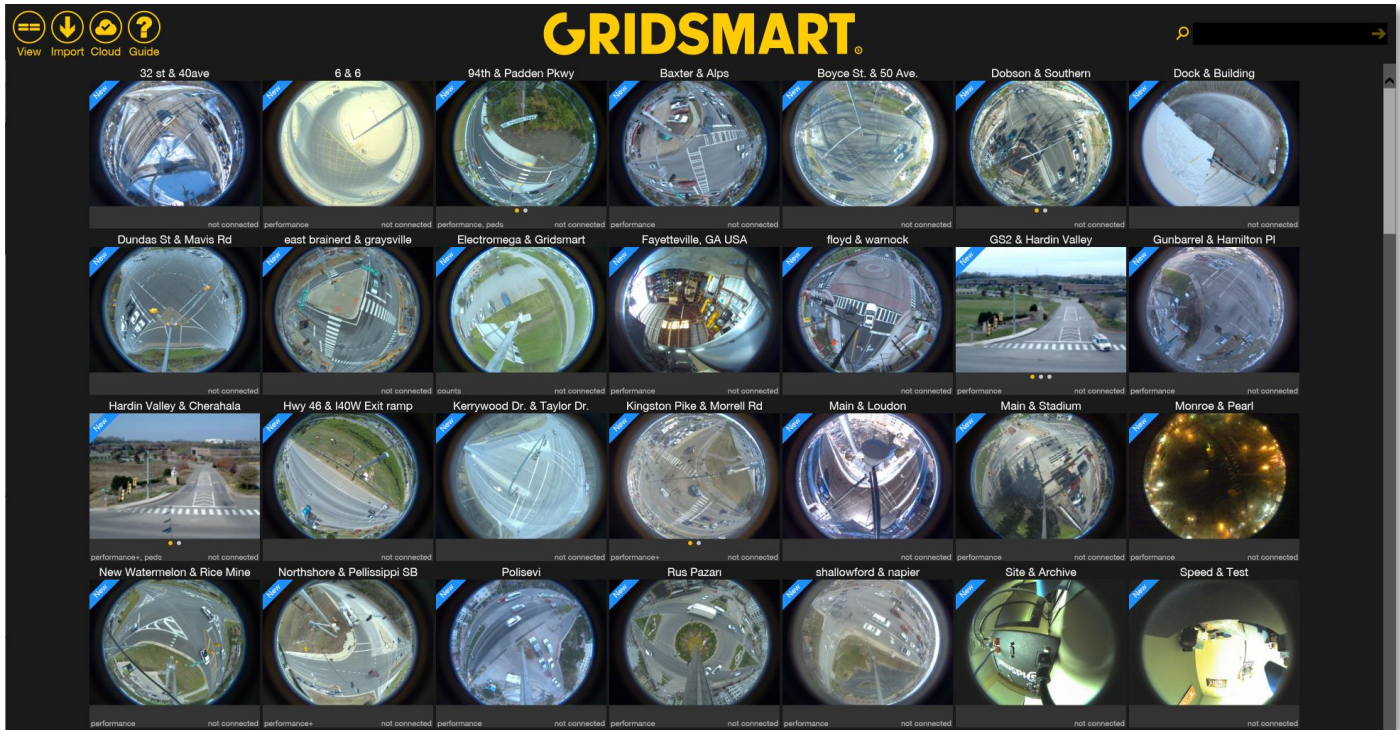
Click Okay.



Learning Mode

The GRIDSMART Processor is in Learning Mode for the first 4-6 minutes of system operation after a reboot, restart or adding/replacing cameras. The system operates in recall while the GRIDSMART Engine learns the scene.

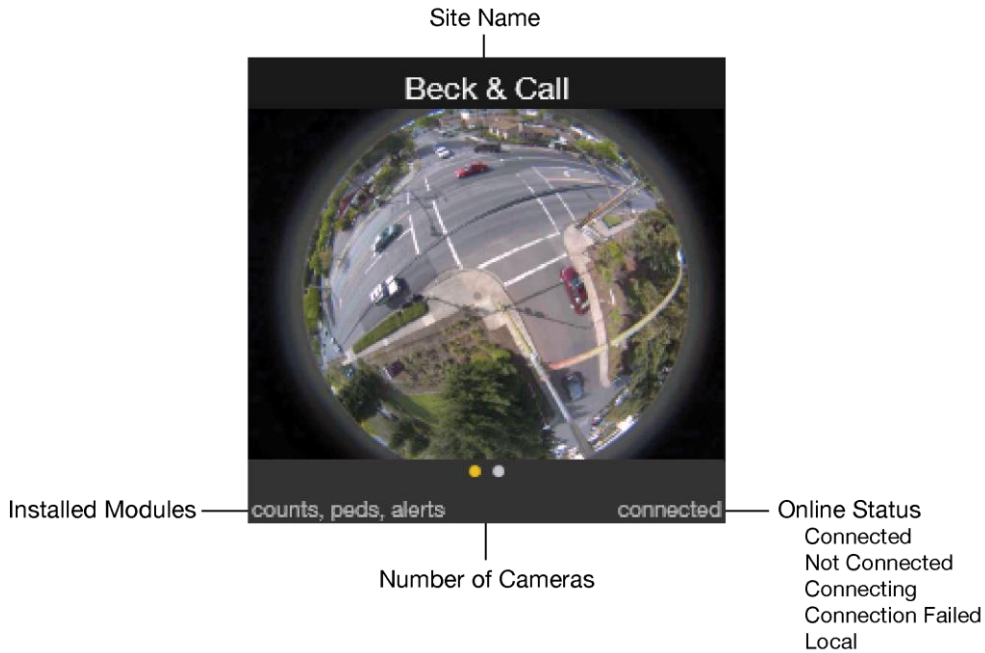
SITE CARDS AND THE SITES HOMEPAGE



The Sites Homepage appears after you launch the GRIDSMART Client. A Site Card represents an individual intersection, and the Sites Homepage displays a Site Card for each of your known sites. Additional Site Cards appear on the Homepage after you connect to new sites.

Site Cards

Site Cards display useful information. The site name, above a thumbnail image, is determined by the cross streets defined in the configuration.



The Sites Homepage only displays one card the first time you configure a GRIDSMART system; the Factory Default card.

The blue New indicator appears in the upper left-hand corner of the card, and New Camera appears below the thumbnail image.

If you are locally connected to the GRIDSMART Processor (Ethernet or Wi-Fi), the Site Card appears at the top center of the Homepage.



The Processor cannot see this new Camera. The Site is connected, but the Camera is offline.

To remove a site from your Homepage, click the Yellow X in the upper right-hand corner of the card.

A yellow “!” indicates a new Camera has been found. A red “!” is camera offline or failed connection (which overrides yellow in the event you have both new camera and an offline camera).



Open a Site

To open a site, click the appropriate Site Card on the Sites Homepage.

You can also use the search bar in the upper right-hand corner of the Sites Homepage to search your sites by street, city, state, postal code or IP address.



Site Cards display on the Homepage if the Client previously connected to the site and the IP address of the corresponding GRIDSMART Processor has not changed.

SITE VIEW SCREEN

Fisheye and Flattened View

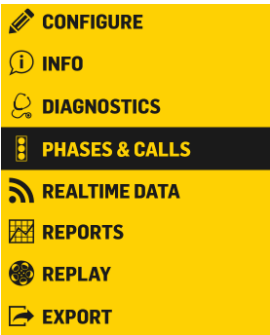


Quad View

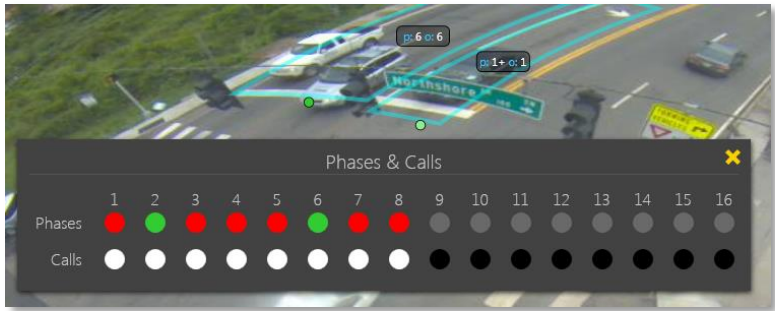
In Quad View, each of the four panels can display cameras in Fisheye view, pan-tilt-zoom view, and rectilinear view for traditional and infra-red cameras.



Phases and Calls



Click the Traffic Signal icon in the Site Menu to display phases and calls during replay, as well as when viewing live, connected sites.



Make or Clear Calls on Operating Zones


To make or clear calls on operating zones, you must have connectivity to the site or be running GRIDSMART Client on the Processor. You must also have Admin or Publish level privileges.

1. Click to select a Site Card from the Sites Homepage.
2. Move the mouse pointer into a zone and directly above the phase/output label. The phase/output label content changes to action/info icons represented by a gear and the letter "i" respectively.
3. Click the Gear to open the Call and Clear buttons.
4. Click Call to activate a call on the zone. Click Clear to clear a call from the zone. You are required to authenticate with your username and password the first time you call or clear any zone.



For zones with designated phases, calls will persist until the light receives a green. Without a designated phase, calls will persist for 10 seconds.

Calls are not placed for two seconds when cleared in this manner. The zone will not reactivate until a new vehicle enters the zone or a vehicle already in the zone moves.

Click  to see zone phase information:



Click  to see zone alerts:



SITE CONFIGURATION



Use the Top Menu bar on the Site View screen to add and configure zones and masks.

Vehicle Zones

A Vehicle Zone is the basic vehicle detection region. When you assign an output to a Vehicle Zone, GRIDSMArt sends a signal to the controller when a vehicle is present in the area. Zones also collect vehicle data for Reports and Alerts.

Vehicle Zone recommendations:

- 1. Zones should be 3-4 car lengths.
- 2. Maintain a distance of 1-2 feet between each zone.
- 3. Zones should cover the entire movement region regardless the number of lanes.

Create a Vehicle Zone

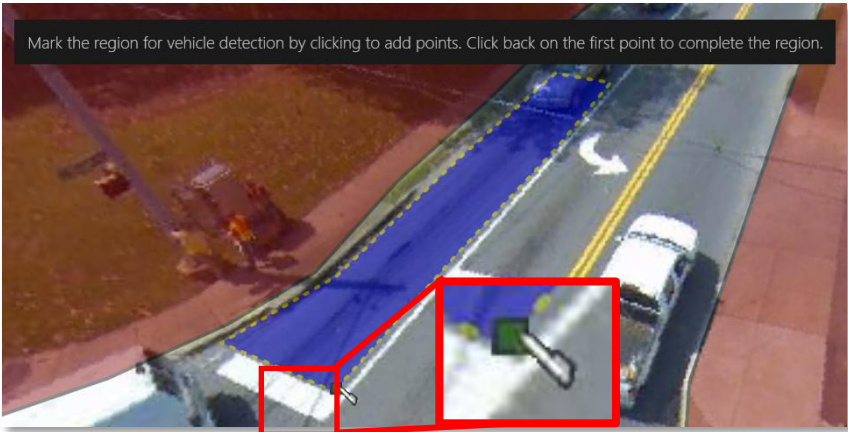
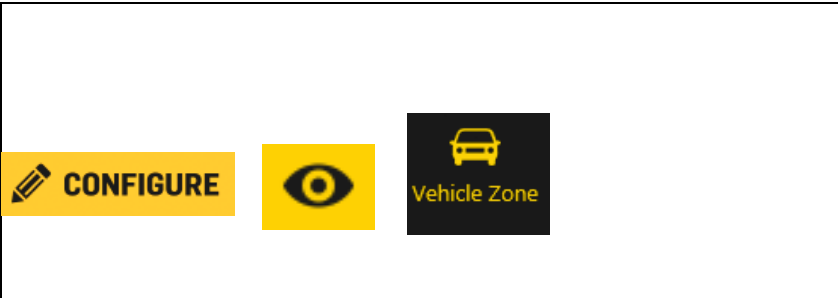
Click the Configure pencil, then click the Eye icon. Click the Vehicle Zone icon.

In flattened mode, the image becomes a virtual pan-tilt-zoom. Pan and zoom the image to the area where the zone will be created.

Draw the Zone

Mark the region for vehicle detection by clicking to add points.

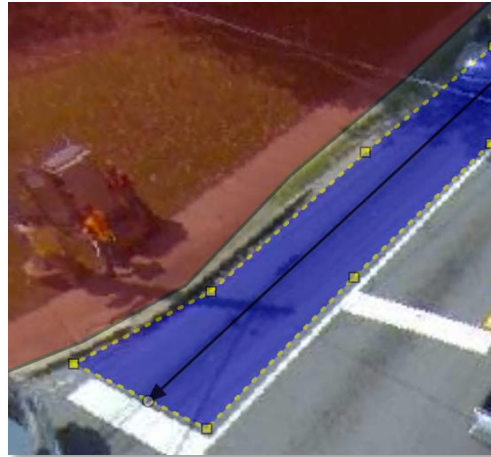
Click back on the first point to complete the region. The icon turns into a pencil over the original mark.



Direction

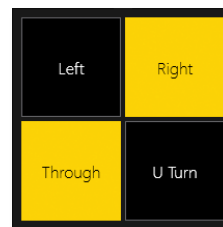
Left-click the front of the directional flow arrow.

Drag the arrow to indicate the flow of traffic.



Turns

Select valid turns from the Vehicle Zone.



Phase

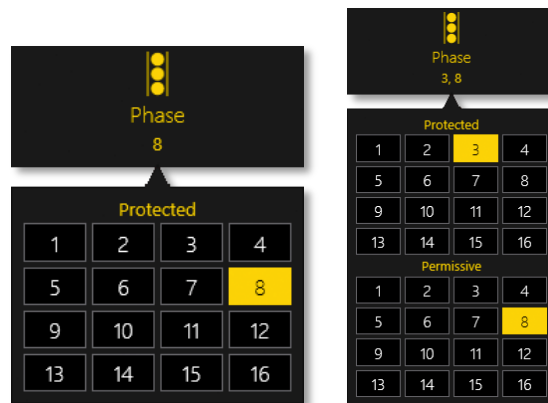
Click the phase(s) associated with the Vehicle Zone.


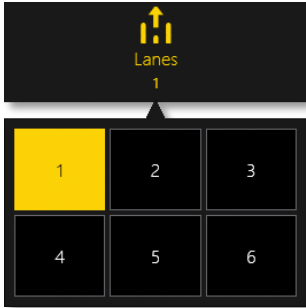
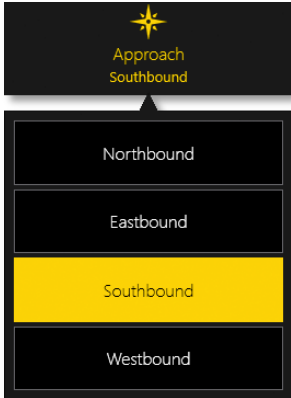
Left turn zones can be Protected, Permissive or Protected/Permissive.

Only assign phases to zones that are located at the Stop Line and physically connected to the light state phase.



Do not assign phases to a setback zone.



<p>Output / BIU / SIU</p> <p>The output, or call, identifies the channel that the vehicle detector will send a signal to when activated. GRIDSMART supports Presence Mode only.</p> <p>Multiple outputs may be assigned.</p> <p>Occupancy Based Outputs can also be assigned.</p>	
<p>Lanes</p> <p>Assign the number of lanes covered by the zone.</p>	
<p>Approach</p> <p>The Reports module aggregates vehicle data based on the approach.</p>	

Options

Zone Name appears in the Reports module.

Extension extends a call to the controller in tenths of a second.

Delay suspends the call to the controller in tenths of a second (only during a Red sequence).

Max Recall is a failsafe. When On, the zone is placed in constant call during learning mode or a system failure event. When Off, the call only persists until the phase is serviced by a green sequence.

Include in Approach logs vehicle Counts.

Visibility Detection is a threshold mechanism that enables the system to detect fog, glare or other similar events. If the Visibility Detection exceeds the threshold, a constant call is placed until the event clears.

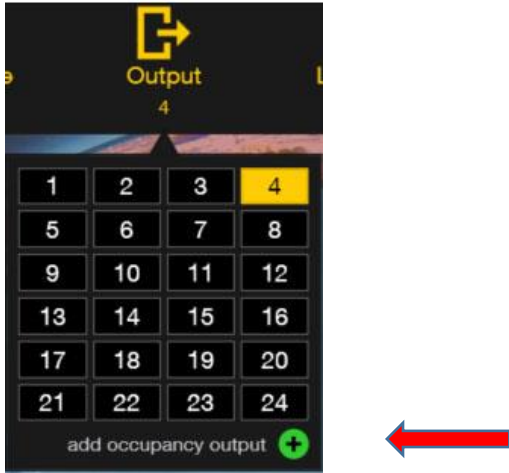
Locking places a call to the controller until

<p>the phase is serviced.</p> <p>The Left and Right Entry options allow the user to specify if a side zone entry should activate the detector. This is used for driveway exits at or near the stop line where vehicles may not travel in the direction of the flow arrow.</p>	

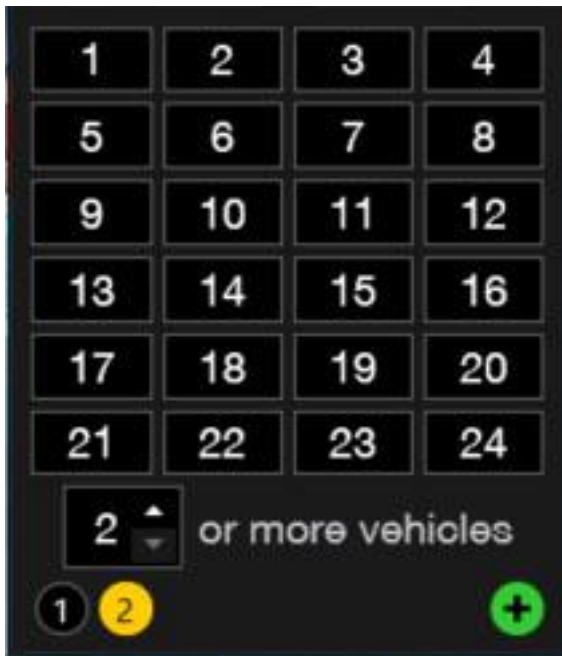
Occupancy Based Outputs

Occupancy Based Outputs can be configured while creating Zones.

To Start, click the Green Plus icon under the output option for the zone.



This will create an output that will only activate once the number of cars you select are in the zone.

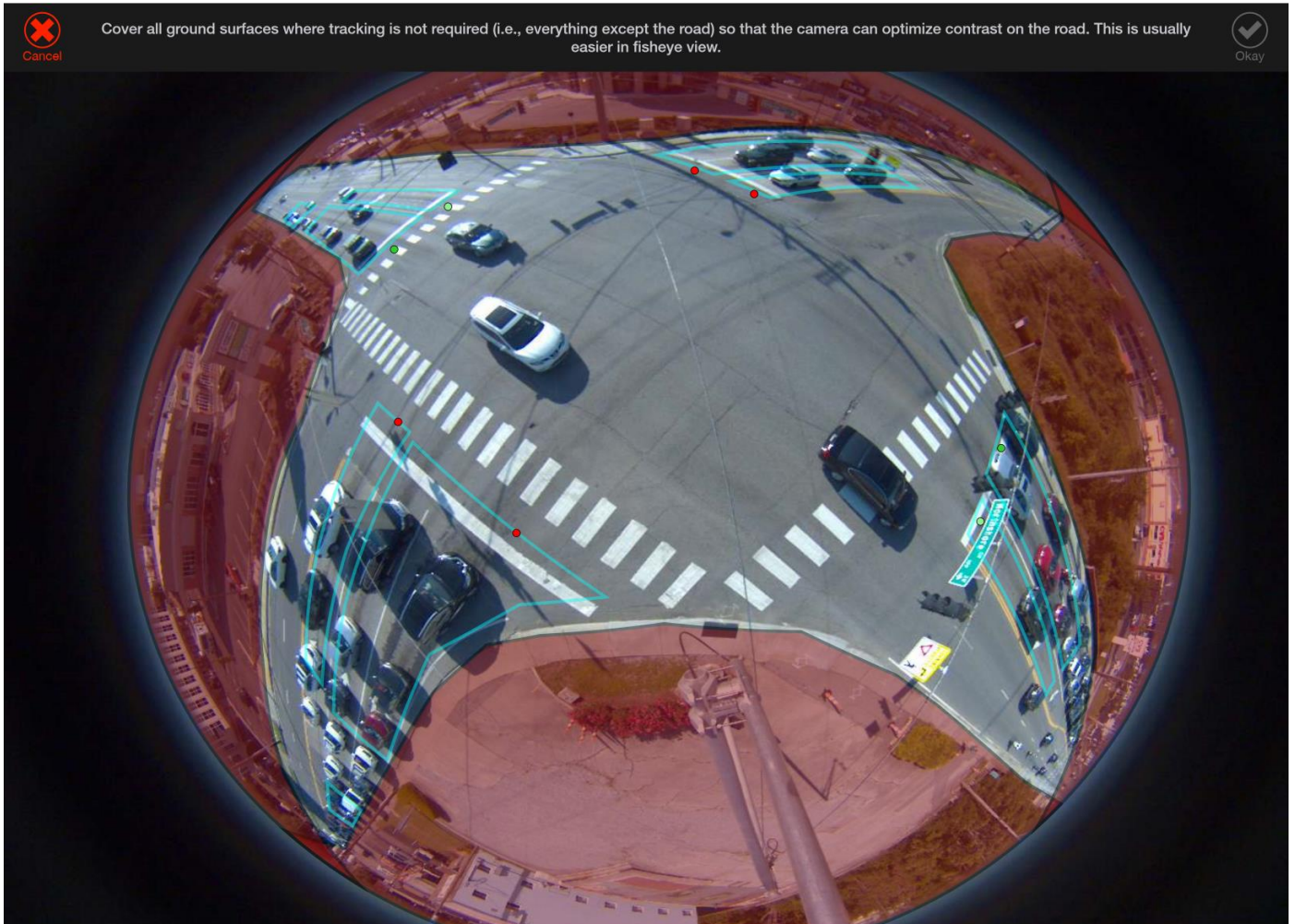


Select the number of cars desired (up to 6) for the new output. You can now add up to 6 different outputs for each zone.

Road Masks

Road Masks eliminate areas that do not require object tracking (i.e. everything except the road). You may find it easier to create masks in the Fisheye view.

1. Click Road Mask on the Top Menu bar.
2. Place the cursor at the edge of the roadway, then click to place the starting point.
3. Click around the edge of the area to be covered, bringing the cursor back to the starting point.



4. Hover the cursor over the green starting point until the cursor turns into a pencil, then click the pencil to close the mask area.
5. Click Okay to complete.
6. Continue Masking out all other areas.

Object Masks

Draw Object Masks to cover objects that block or interfere with the camera view of the ground or road.

Object Masks are very important because they eliminate objects that may result in false calls (signal heads, mast arms); disrupt the image contrast because they are highly reflective (Luminaire heads, poles, mast arms); emit light at night (lighted signage).

To create Object Masks, click Object Masks on the Top Menu bar and follow the same instructions in the [Road Masks](#) section.

Unmasked signals:



Signals masked out:

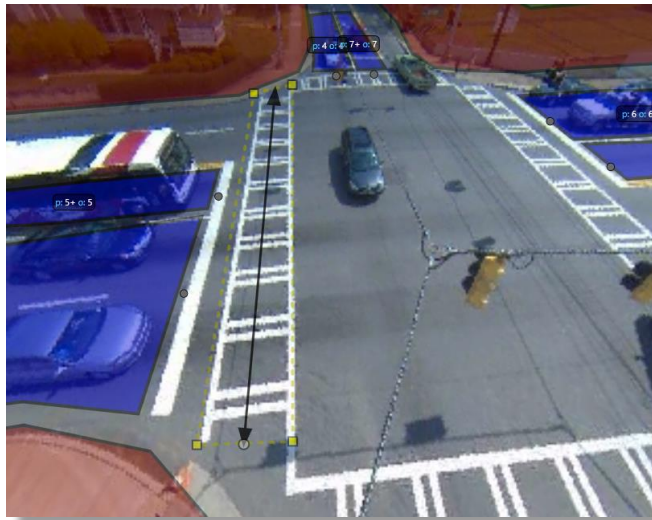


Pedestrian Zones

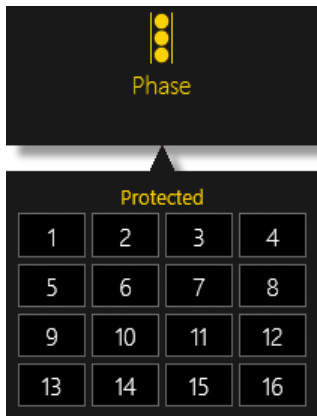


A Pedestrian Zone detects bi-directional pedestrian movement in crosswalks. Outputs signal the controller, or other devices, of pedestrian activity in the intersection.

1. Click the Pedestrian icon from the Top Menu bar.
2. Place the cursor at or near the corner of the crosswalk. Cover the detection zone by clicking around the area, then return to the starting point to close the zone.
3. Set the direction of crossing.



4. Select the Protected Pedestrian Phase and Output.



5. Select Alerts and Options as needed.

Factory Default and Reset to Factory

GRIDSMART Processors ship from the factory in the original “default” state, and the Site Card is labeled Factory Default. Resetting a Processor erases all configurations and history.



Reset to Factory cannot be performed remotely. You must either run the GRIDSMART Client on the Processor, or run the Client on a laptop directly connected to the Processor through the local port.

Reset to Factory appears on the Site Configuration screen and requires Admin level privileges for the site.

1. Launch the GRIDSMART Client. The large Site Card appears as the Local Site on your Sites Homepage.
2. Click the Site Card to enter the Site View screen.
3. Click the Configure pencil on the Site Menu.
4. Click Revert on the Site Configuration screen, then click Reset to Factory.
5. Authenticate with the Admin password, then click Reset to Factory to complete the process.

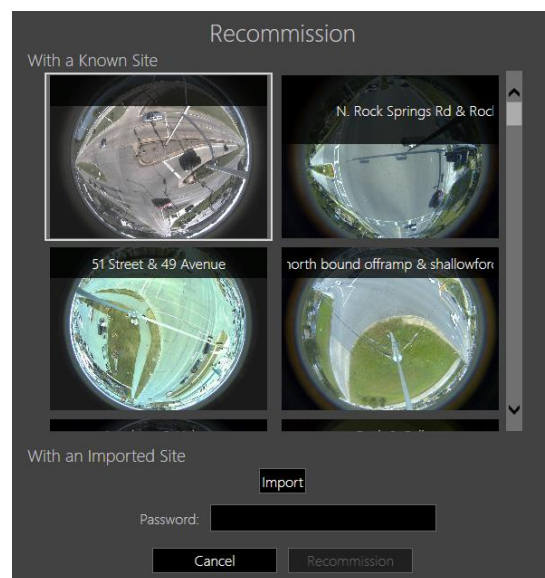
Reset to Factory does not remove the original Site Card from the Sites Homepage. If you no longer need the old Site Card, you can safely delete it by clicking the Yellow X in the upper right-hand corner of the card.

Recommission a Processor to Factory Default



To replace a Processor at an existing GRIDSMART site, use the Recommission feature.

1. Click the Recommission icon.
2. Select a Site Card to use with the new Processor, or, click Import to browse for the appropriate Site Card.
3. Enter the system password and click Recommission. The Factory Default Processor will be configured with the selected Site configuration.

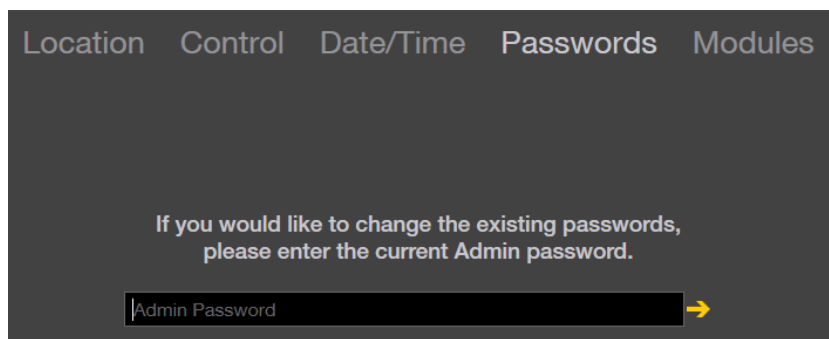


There are two levels of security permissions in the GRIDSMART Client.

Publish permission is required to [Publish](#) configuration changes.

Admin permission is required to change passwords and perform a [Reset to Factory](#). The Admin user also has Publish privileges. The default password for both users is aldiss#world9.

To change passwords, click Site Settings on the Site Menu, then click Passwords.



PUBLISH

Publishing sends changes made in the GRIDSMART Client into live operation on the corresponding GRIDSMART Processor.



The Publish icon appears in the upper right-hand corner of the Site Configuration screen when you have unpublished changes. You must enter a username and password to Publish along with a brief description of the changes made.

Changes can be reviewed and/or reverted using the [Revert](#) feature.

All changes must be published to the Processor to be implemented.

Make Changes to a Site Configuration

Changing a site configuration is similar to configuring a new site as described in the [Factory Default](#) section.

1. Launch the GRIDSMART Client.
2. Click the appropriate Site Card on the Sites Homepage. The Site View screen appears.
3. Click the Configure pencil on the Site Menu to enter the Site Configuration screen.
4. Make the desired changes.
5. Click Publish on the Site Configuration screen. If you are connected to the site, your changes are immediately placed into live operation after entering your username and password. If you are not connected and have a removable drive attached to your machine, you will be prompted to [Publish to Drive](#).

Publish History

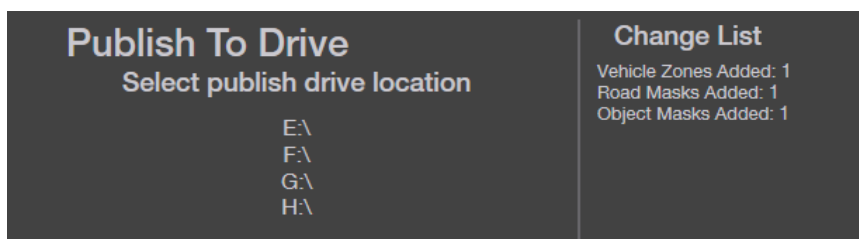
Publish History		
Date	Who	What
4/23/2015 10:24 AM	wHynds	Changed all System Events Alert
4/22/2015 6:11 AM	jrp	changed all systems alert
2/20/2015 9:18 PM	MT	Added Permissive phase to...
10/27/2014 8:00 AM	jrp	Added system alert to Software
10/27/2014 7:59 AM	irn	Added Alerts Module to license

Publish History displays all previously published changes made to a site configuration. Click the Info icon on the Site Menu to see the date, time, username and description of the changes.

Publish History is also displayed in the [Revert](#) panel on the Site Configuration screen.

Publish to Drive

This feature allows you to make changes to a site in your office or vehicle that can be put into field operation by simply connecting a USB storage device to the GRIDSMART Processor. When you have unpublished changes for a site to which you are not currently connected, clicking Publish on the Site Configuration screen will present the Publish to Drive dialog.



Publish to Drive will take your unpublished changes and put them onto the selected drive, making that drive a Data Stick or Drive. Your changes are published to the corresponding Processor when the Data Stick or Drive is connected to the Processor. The changes will continue to show as unpublished in your Client until the Data Stick or Drive is once again connected to your Client machine with the Client running.

Make Changes to a Site without Taking a Laptop into the Field

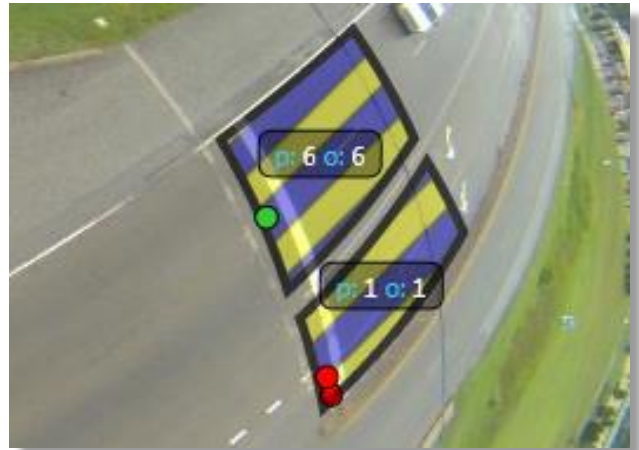
1. Make the desired changes to the site using the GRIDSMART Client.
2. Ensure that either an empty USB storage device or an already used Data Stick or Drive is connected to your Client computer.
3. Select Publish from the Site Menu, select the appropriate drive, and complete the publish procedure. If you began with an empty USB storage device, this process, once complete, will transform that device into a GRIDSMART Data Stick or Drive.
4. Take the USB device to the field and connect it to the corresponding GRIDSMART Processor. Observe the Processor front panel. Your changes will automatically be published onto the Processor. Additionally, data from the GRIDSMART Processor will be copied onto your Data Stick or Drive including log files, count data (if data-enabled), and image data.
5. Take the USB device from the field and connect it to your Client computer again. Until you do this, the changes you made will show as unpublished in your Client. This process will also copy count data from the Data Stick or Drive onto your Client computer for use within the [Reports](#) screen.

Unpublished Changes

Unpublished changes are site modifications made in the Client that have not yet been put into operation.

Unpublished mask and zone changes are indicated with a hash mark fill pattern in the Site View screen.

The Sites Homepage displays a hash mark fill pattern on Site Cards with unpublished changes.



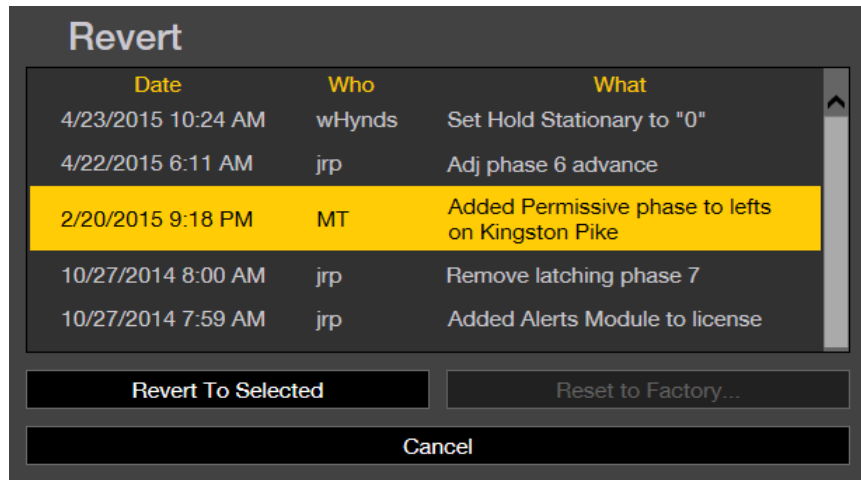
Click Publish on the Site Configuration screen to save your changes.

REVERT



The Revert feature returns the GRIDSMART Processor to any previously published configuration.

1. To open the Revert panel, click the Configure pencil on the Site Menu, then click Revert to Selected.



2. Select a previously published configuration, then click the Revert to Selected button.
3. You must [Publish](#) a reverted configuration for it to take effect.

The current operational configuration is listed at the top of the Revert list. Revert to this configuration to remove any unwanted [unpublished changes](#).

SITE INFO

Click the Info icon on the Site View screen to display location settings, including control settings, installed modules, cameras and publish history.

Site Info (v6.8)

Location Settings

Hardin Valley & Cherahala
Knoxville TN 37932
35.92 -84.2

Control Settings

Full Control
TS1

Modules

Performance+
Pedestrian

Serial # GS2-1021

Site Id ae86dbe5-602e-49e8-828d-ff924fd9f0f7

License Id 00E04B4FC025

Date/Time 1/19/2018 8:59:04 AM
(UTC-05:00) Eastern Time (US & Canada)

Cameras

SW FLIR
0° / 29 ft
Infrared

SW Bell
37° / 32 ft
Fisheye

Show GRIDSMAART API

Publish History

Date	Whc	What
12/20/2017 8:12 AM	jrp	licensed
12/20/2017 8:10 AM	jrp	street names
12/20/2017 7:59 AM	jrp	arrivals
12/20/2017 7:57 AM	jrp	tweaks
12/20/2017 7:56 AM	irp	actual setup

January 2018

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MODULES

GRIDSMART offers add-on software modules that create your one-of-a-kind solution. Modules are independently licensed on each Processor and appear on the intersection [Site Card](#).

PERFORMANCE and PERFORMANCE PLUS Modules

The PERFORMANCE Modules unlock access to at least one full year of historical traffic data, accessible via the Client or the [API](#).

[Reports](#) can be exported as PDF for Excel files and include Volume, Turning Movement Count and Vehicle Classification reports.

The [Auto Reports](#) feature emails reports to you based on your schedule.

REALTIME DATA Module

The REALTIME DATA Module displays minute-by-minute intersection performance data for the last hour. Metrics include green time, percent arrivals on green, volume and occupancy.

To open the REALTIME DATA window, click the Broadcast icon on the Site Menu to open the REALTIME DATA window.

Realtime Data								
Now	Phases							
	1	2	3	4	5	6	7	8
Green Time	00:00	00:18	00:00	00:00	00:00	00:14	00:00	00:00
Occupancy	0	4	3	4	0	4	6	5
Last 15								
Green Time	01:51	06:16	01:39	03:16	02:48	05:20	01:53	03:04
Greens Received	6	6	6	6	6	6	6	6
Volume	31	172	34	143	62	210	49	171
% Arrivals On Green	30	61	26	43	38	56	24	48
Occupancy Time	10:09	11:49	11:59	14:37	13:45	13:55	15:00	14:58
Last Hour								
Green Time	07:29	24:39	06:39	13:39	09:34	22:32	07:33	12:35
Greens Received	24	24	22	24	24	24	24	24
Volume	127	699	174	591	187	819	221	651
% Arrivals On Green	32	55	25	43	33	57	27	47
Occupancy Time	41:56	50:28	46:54	58:36	50:19	54:24	58:50	58:46

Alerts

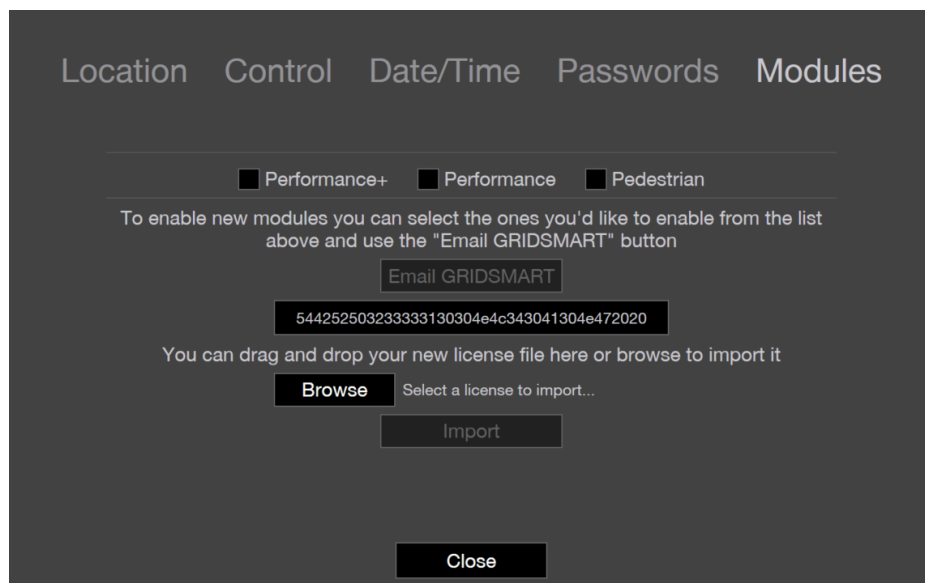
The [Alerts](#) enables a GRIDSMART Processor to send emails to a user-defined set of contacts when certain events occur. There are Site Alerts and Zone Alerts. Site Alerts include All System Events (available without the Alerts Module), Loss of Visibility, Flash and Volume Exceeded. Zone Alerts include Volume Exceeded and Zone Activated, where Zone Activated alerts detect wrong way travel or breakdown lane occupancy.

Pedestrian Module

The Pedestrian Module enables the GRIDSMART system to detect pedestrian moving through crosswalks for extensions and increased safety. Note that the Pedestrian Module does not support counting or actuation.

Add a Module

1. Launch the GRIDSMART Client and click the appropriated Site Card.
2. Click the Configure pencil, then click Site Settings.
3. Click the Modules tab.
4. Follow the instructions to add a new Module license files.
5. Publish your changes after you receive and import the license files.



REPORTS

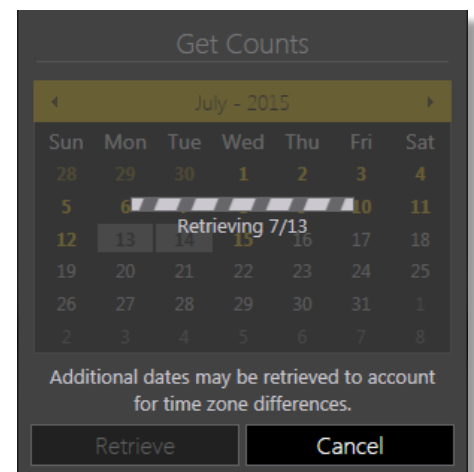
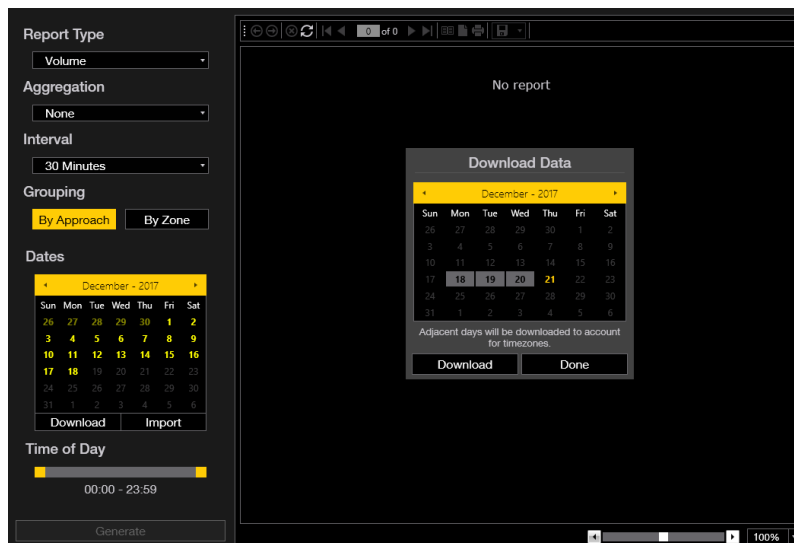


With the PERFORMANCE and PERFORMANCE PLUS Modules, GRIDSMART automatically logs vehicle counts for up to one year. Counts are stored on a first in, first out basis.

Get PERFORMANCE DATA with the Client

When connected to a site either locally or remotely, use the GRIDSMART Client to retrieve count data.

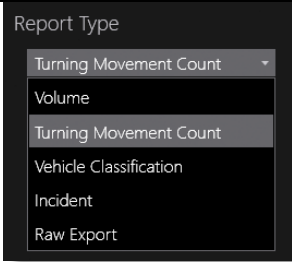
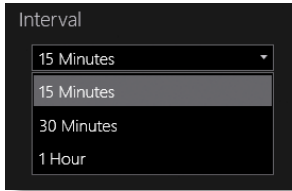
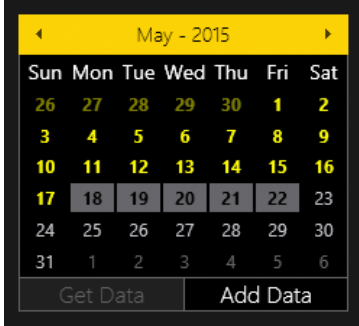
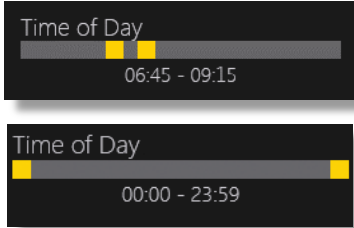
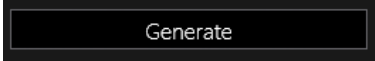
1. Click the appropriate Site Card on the Sites Homepage.
2. Click the Reports icon on the Site Menu.
3. On the Reports Screen, click the Download button under the calendar on the left. In the calendar that appears in the middle of the window, select one day or several days of data to retrieve.
4. Click the Download button under the middle calendar, then Done once the data has been downloaded. It may take a while to retrieve data over slow connections.



1. Begin with a freshly NTFS-formatted USB storage device or with a Data Stick or Drive that you have already used with GRIDSMART. If you are formatting a new device with greater than 128GB of storage, please select NTFS.
2. Ensure that there is enough free space on the device for your needs.
3. Connect the USB storage device to a USB port on the GRIDSMART Processor. Observe the front panel.
4. Images and other data – including counts for systems with the Data Module – are automatically copied onto the device. For large capacity devices (>128GB), images will be stored at approximately 5-10 images per second until the drive is full. For small capacity devices, images will be stored at approximately one image per second for only three minutes.
5. Once you have collected the data you need, and the Processor front panel indicates that it is safe to do so, disconnect the USB device from the Processor. This USB device is now a GRIDSMART Data Stick or Drive.
6. Connect your Data Stick or Drive to the computer where you intend to use the GRIDSMART Client for reporting.
7. Launch the Client, select the Site Card for your site of interest and then click Reports (chart icon) on the Site Menu.
8. The count data from your Data Stick or Drive will be automatically synchronized with your Client and available for use in the Reports Screen as indicated by highlighted dates in the calendar.

Generating Reports

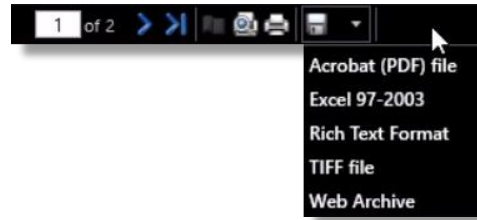
Once the Counts have been synced to the Site, click the Reports icon and choose your options.

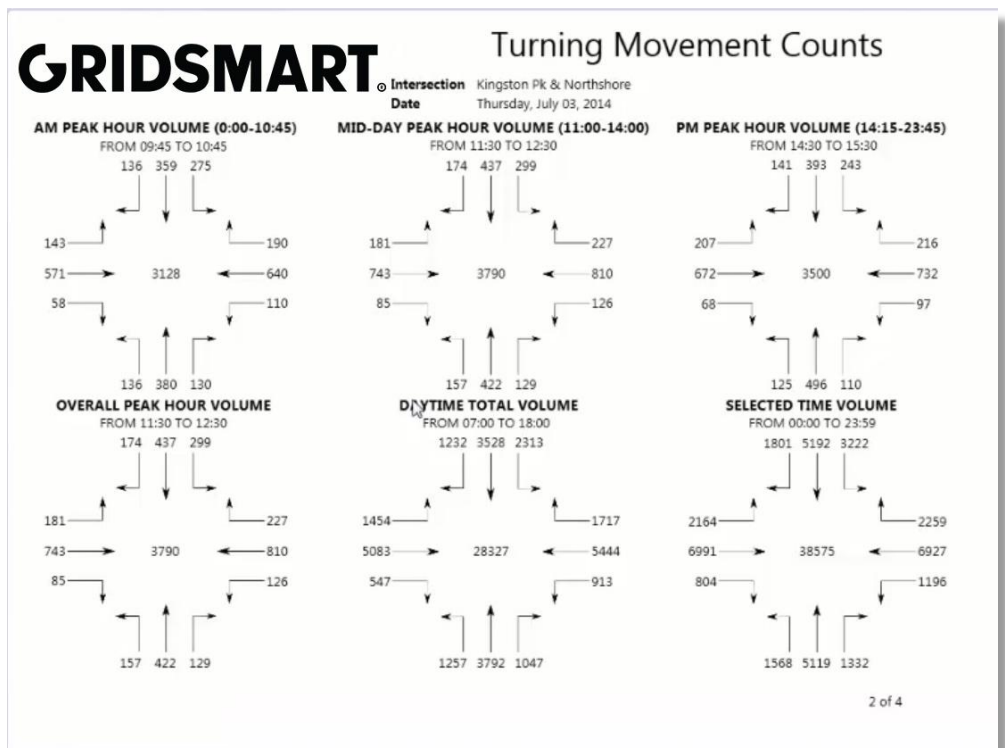
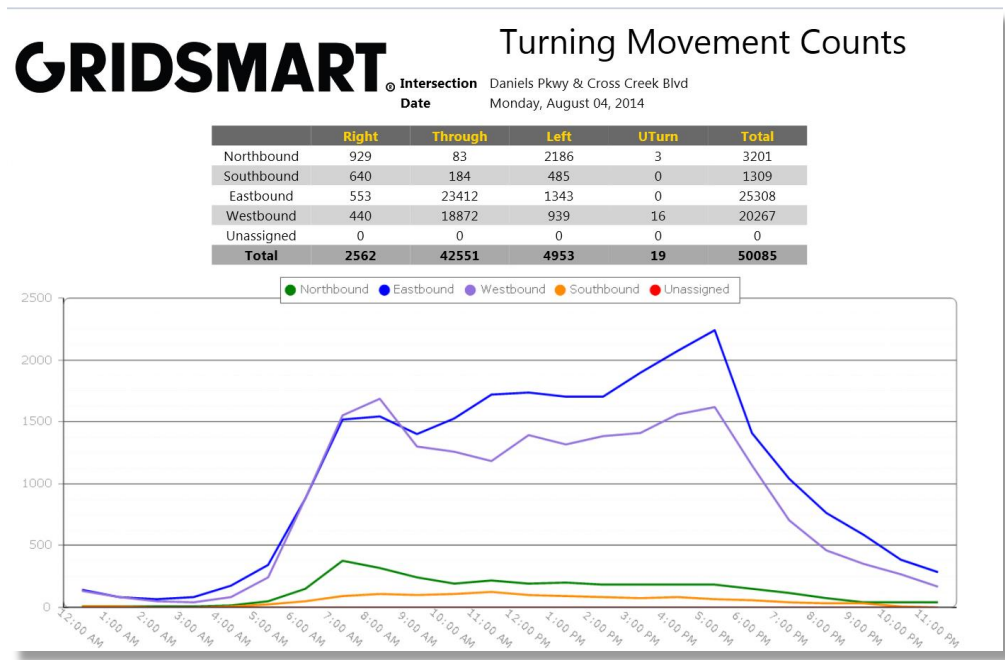
Select the Report Type.	 A dropdown menu titled "Report Type" with a dark background. The menu is open, showing a list of options: "Turning Movement Count" (highlighted), "Volume", "Turning Movement Count", "Vehicle Classification", "Incident", and "Raw Export".
Select the Interval.	 A dropdown menu titled "Interval" with a dark background. The menu is open, showing a list of options: "15 Minutes" (highlighted), "15 Minutes", "30 Minutes", and "1 Hour".
Click a date or drag the cursor to highlight a date range.	 A date range selector interface. At the top, it says "May - 2015" with left and right navigation arrows. Below is a calendar grid with days of the week (Sun to Sat) and dates. Some dates are highlighted in yellow. At the bottom, there are two buttons: "Get Data" and "Add Data".
Use the slider to specify the Time of Day.	 Two "Time of Day" slider interfaces. The top slider shows a range from 06:45 to 09:15, with two yellow markers on a dark track. The bottom slider shows a range from 00:00 to 23:59, with two yellow markers on a dark track.
Click Generate.	 A rectangular button with a dark background and the word "Generate" in white text.

Use the header to browse and print pages.

Click the disk to save the report as:

1. PDF
2. Excel
3. Rich Text Format
4. TIFF Image
5. Web Archive





Report – Vehicle Classification

Use the sliders under Edit Bins to define customized vehicle length bins.

Report Type

Vehicle Classification

Edit Bins

Length Bins

Bin 1 0 - 9 ft

Bin 2 10 - 23 ft

Bin 3 24 - 35 ft

Bin 4 36 - 51 ft

Bin 5 52 - 73 ft

Defaults Okay

GRIDSMART

Intersection Hardin Valley & Cherahala
Date Tuesday, June 02, 2015

Vehicle Classification Counts

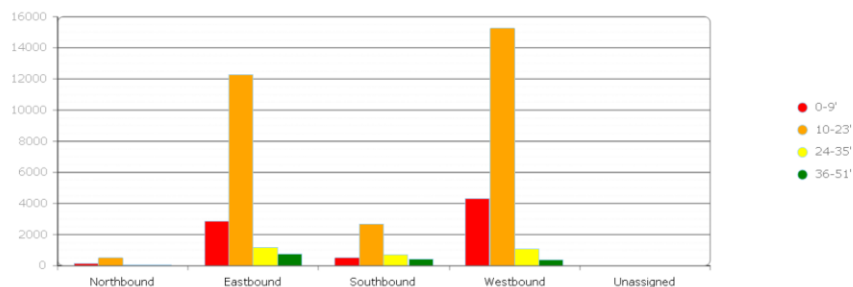
	Northbound				Southbound				0-9'
	0-9'	10-23'	24-35'	36-51'	0-9'	10-23'	24-35'	36-51'	
11:30 AM	4	20	2	2	6	54	11	6	26
11:45 AM	2	15	4	1	11	46	16	6	22
12:00 PM	6	26	1	0	12	63	13	8	28
12:15 PM	3	17	4	4	8	59	9	11	27
12:30 PM	4	16	3	1	7	36	5	5	29
12:45 PM	3	14	0	1	6	36	5	4	26
1:00 PM	1	16	3	1	5	43	7	5	20
1:15 PM	5	10	3	2	4	44	13	4	27
1:30 PM	3	10	5	0	6	59	17	11	34
1:45 PM	2	15	3	1	3	36	9	4	24
2:00 PM	4	6	2	1	4	29	8	9	32
2:15 PM	4	5	3	0	7	30	13	7	24
Total	41	170	33	14	79	535	126	80	319

GRIDSMART

Intersection Hardin Valley & Cherahala
Date Tuesday, June 02, 2015

Vehicle Classification Counts

	Northbound	Southbound	Eastbound	Westbound	Unassigned	Total
0-9'	117	497	2844	4303	0	7761
10-23'	478	2717	12280	15233	0	30708
24-35'	79	662	1202	1090	0	3033
36-51'	38	456	745	354	0	1593
Total	712	4332	17071	20980	0	43095



Report – Incidents Excel Output

A1												
	A	B	C	D	E	F	G	H	I	J	K	
1	10/26/2012	11:45.2	29505	1	ILLEGAL_LEFT	32.0511	0	T6	61	PG	SR	
2	10/26/2012	17:07.3	29827	1	ILLEGAL_LEFT	32.0552	0	T0	20	PG	SR	
3	10/26/2012	21:18.8	30078	1	ILLEGAL_LEFT	30.6899	0	T3	20	PG	SR	
4	10/26/2012	22:40.8	30160	4	ILLEGAL_LEFT	52.4821	0	T0	16	PG	S	
5	10/26/2012	30:14.0	30614	1	ILLEGAL_LEFT	29.6204	0	T0	17	PG	SR	
6	10/26/2012	30:59.8	30659	1	ILLEGAL_LEFT	37.7162	0	T2	55	PG	SR	
7	10/26/2012	31:20.7	30680	8	ILLEGAL_RIGHT	33.7939	0	T0	7	PG	S	
8	10/26/2012	32:03.9	30723	10	ILLEGAL_LEFT	48.3713	0	T0	11	PG	S	
9	10/26/2012	34:42.1	30882	2	ILLEGAL_RIGHT	32.044	0	T1	19	PG	LS	
10	10/26/2012	45:09.5	31509	1	ILLEGAL_LEFT	25.169	0	T1	20	PG	SR	
11	10/26/2012	50:46.5	31846	1	ILLEGAL_LEFT	30.6881	0	T6	73	PG	SR	
12	10/26/2012	53:43.3	32023	2	ILLEGAL_RIGHT	27.1043	0	T0	19	PG	LS	
13	10/26/2012	58:54.9	32334	1	ILLEGAL_LEFT	25.1757	0	T1	21	PG	SR	
14												

Report – Incidents Report

GRIDSMART

Intersection Kingston Pk & Northshore
Date Monday, July 13, 2015

Incident Report

	Northbound	Southbound	Eastbound	Westbound	Total
Illegal Turn	14	6	13	19	52
Red Light	201	153	43	121	518

Exits on Red

	Northbound	Southbound	Eastbound	Westbound	Total
11:30 AM	109	87	25	58	279
12:30 PM	92	66	18	63	239
Total	201	153	43	121	518

Illegal Turns

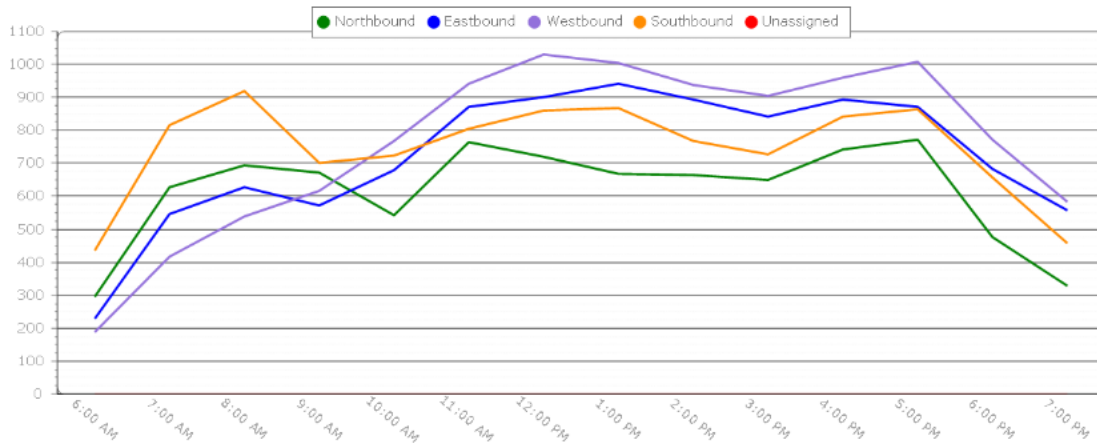
	Northbound			Southbound			Eastbound			Westbound		
	R	T	L	R	T	L	R	T	L	R	T	L
11:30 AM	0	6	0	0	2	1	0	8	0	0	8	2
12:30 PM	0	8	0	0	0	3	0	5	0	0	8	1
Total	0	14	0	0	2	4	0	13	0	0	16	3

GRIDSMART

Volume Report

Intersection: Kingston Pk & Northshore
Date: Monday, July 13, 2015

	Total
Northbound	8603
Southbound	10434
Eastbound	10106
Westbound	10663
Unassigned	0
Total	39806



	Northbound	Southbound	Eastbound	Westbound	Total
6:00 AM	294	435	228	187	1144
7:00 AM	626	814	548	417	2405
8:00 AM	693	919	629	540	2781
9:00 AM	672	703	572	618	2565
10:00 AM	542	723	681	768	2714
11:00 AM	763	803	870	940	3376
12:00 PM	719	859	900	1029	3507
1:00 PM	667	866	942	1003	3478
2:00 PM	663	766	894	938	3261
3:00 PM	648	729	840	903	3120
4:00 PM	741	840	893	959	3433
5:00 PM	773	865	870	1008	3516
6:00 PM	475	656	683	770	2584
7:00 PM	327	456	556	583	1922
Total	8603	10434	10106	10663	39806

Report – Raw Data Export

Creates a CSV file with raw count data.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Date-UTC	ApproachType	Name	SecondsSinceLastExit	SecondsInZone	SecondsSinceLastGreen	TurnType	SpeedOnExit	DayMode	CarLength	LightState	QueueLength	AllowableTurnType
2	2015-07-14T11:30:01.0625000-04:00	Eastbound		84.48439789	3.799999952	0	Straight	4 D	10	Green		4	Right, Straight
3	2015-07-14T11:30:02.5625000-04:00	Eastbound		1.5	5.300000191	0	Straight	5 D	14	Green		4	Right, Straight
4	2015-07-14T11:30:03.8750000-04:00	Eastbound		1.3125	6.699999809	0	Straight	14 D	14	Green		4	Right, Straight
5	2015-07-14T11:30:05.5625000-04:00	Eastbound		1.6875	1.100000024	0	Straight	15 D	5	Green		4	Right, Straight
6	2015-07-14T11:30:05.9687500-04:00	Eastbound		0.40625	3.900000095	0	Straight	17 D	17	Green		3	Right, Straight
7	2015-07-14T11:30:06.7656250-04:00	Westbound		5.5	3.900000095	0	Straight	11 D	22	Green		5	Right, Straight
8	2015-07-14T11:30:06.7656250-04:00	Westbound		19.2031002	0.100000001	15.3593998	Left	0 D	11	None		3	Left
9	2015-07-14T11:30:06.9687500-04:00	Westbound		0.203125	4	0	Straight	11 D	10	Green		3	Right, Straight
10	2015-07-14T11:30:07.7656250-04:00	Eastbound		1.796880007	10.5	0	Straight	13 D	5	Green		2	Right, Straight
11	2015-07-14T11:30:08.5625000-04:00	Eastbound		0.796875	5.099999905	0	Straight	18 D	4	Green		1	Right, Straight
12	2015-07-14T11:30:10.0625000-04:00	Westbound		0.796875	7.099989891	0	Straight	18 D	21	Green		4	Right, Straight
13	2015-07-14T11:30:10.5625000-04:00	Eastbound		2	3.5	0	Straight	14 D	10	Green		2	Right, Straight
14	2015-07-14T11:30:10.9687500-04:00	Westbound		0.6875	0.5	0	Right	26 D	14	Green		3	Right, Straight
15	2015-07-14T11:30:11.5625000-04:00	Eastbound		0.203125	2.799999952	0	Straight	26 D	5	Green		2	Right, Straight
16	2015-07-14T11:30:13.1718750-04:00	Westbound		0.703125	5	0	Straight	26 D	30	Green		3	Right, Straight
17	2015-07-14T11:30:13.6718750-04:00	Eastbound		2.109380007	2.5	0	Straight	16 D	4	Green		3	Right, Straight
18	2015-07-14T11:30:14.8750000-04:00	Westbound		1.203130007	4.099999905	0	Straight	21 D	12	Green		2	Right, Straight
19	2015-07-14T11:30:15.4687500-04:00	Eastbound		1.796880007	3.200000048	0	Straight	26 D	5	Green		4	Right, Straight
20	2015-07-14T11:30:15.6718750-04:00	Eastbound		0.203125	4.099999905	0	Straight	16 D	6	Green		3	Right, Straight
21	2015-07-14T11:30:16.5625000-04:00	Westbound		2.890630007	3.400019884	0	Straight	24 D	20	Green		6	Right, Straight
22	2015-07-14T11:30:16.7656250-04:00	Westbound		0.203125	3.100029945	0	Straight	28 D	26	Green		4	Right, Straight
23	2015-07-14T11:30:17.2656250-04:00	Eastbound		0.203125	2.400029898	0	Straight	28 D	11	Green		6	Right, Straight
24	2015-07-14T11:30:18.5625000-04:00	Westbound		0.203125	0.400000006	0	Straight	23 D	18	Green		2	Right, Straight
25	2015-07-14T11:30:18.8750000-04:00	Eastbound		1.609380007	3.800019979	0	Right	12 D	13	Green		2	Right, Straight

Auto Reports



Automatically email reports to a group of contacts on a schedule. This functionality is included as part of the Counts Module and requires a connected Processor.

1. Launch the GRIDSMART Client and click on the appropriate Site Card.
2. Click the Configure pencil to open the Site Configuration screen.
3. Click the Auto Reports icon in the upper right-hand corner of the Site Configure screen, then click New.
4. Set the desired report parameters, then click Next.
5. Enter the recipients' email addresses or select them from the list of known contacts.
6. Publish your changes.

Edit Report

Settings

Contacts

Report Type

Turning Movement Count

Interval

1 Hour

Grouping

By Approach

By Zone

Schedule

Repeats: Weekly

Repeat On: M T W T F S S

Summary: Weekly on Sunday

Days In Report

7

Time of Day

00:00 - 23:59

Done

ALERTS



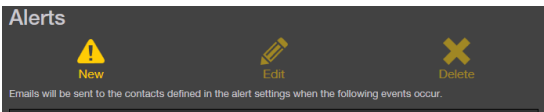
The Alerts Module sends emails to a user-defined set of contacts when the GRIDSMART Processor detects certain events.

Site Alerts include All System Events, Loss of Visibility, Volume Exceeded and Flash (Loss of Greens). All System Alerts are included with your GRIDSMART system and do not require the Alerts Module.

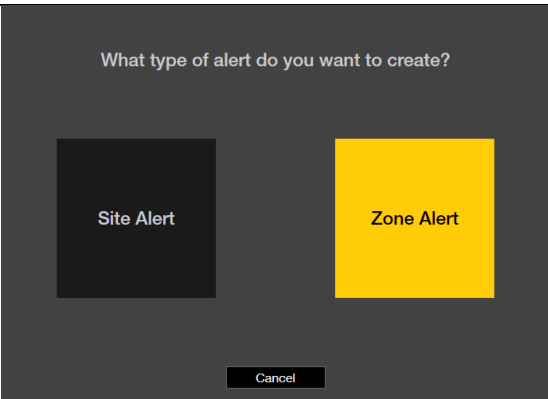
Zone Alerts include Volume Exceeded and Zone Activated, where Zone Activated alerts can be used to detect wrong way travel or breakdown lane occupancy.

To create an Alert, click the Configure pencil on the Site Menu, then click Alerts in the upper right-hand corner.

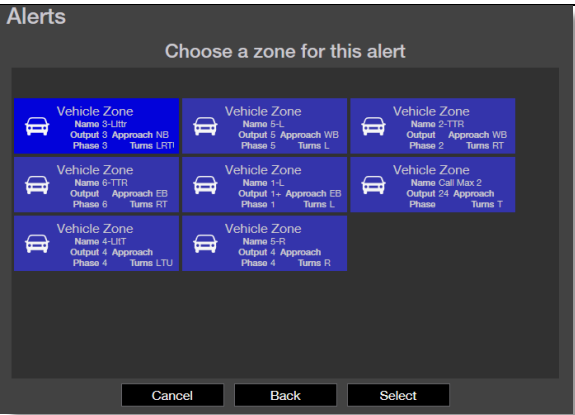
Click New.



Click Site Alert or Zone Alert.



If you are creating a Zone Alert, choose a vehicle zone, then click Select.



Choose an event to trigger the alert, then click Select.

The intersection is determined to be in flash if twelve seconds pass without the GRIDSMART system receiving any green lights from the controller.

Which event will trigger this alert?

All System Events	Send alert on system events such as Publish, Startup, IP address change, and Camera Offline/Online.
Loss of Visibility	Send alert when the camera visibility is lost for any zone. Includes snapshot.
Volume Exceeded	Send alert when the site volume exceeds a set amount.
Flash (Loss of Greens)	Send an alert when the controller is suspected to be in flash.

Cancel Back Select

Add users to notify. Enter a new email address or select from a list of your existing contacts.

Optionally add an alert name. The name defaults to the event type.

All System Events

optional alert name

alert@bestcity.gov x add contact

support@gridsmart.com

Cancel Back Next

Enter the maximum volume for Volume Exceeded alerts.

Select an approach for Site Alerts.

Use the slider to indicate the active time period.

Volume Exceeded

Lunch volume exceeds 6000

6000 All Approaches 11:30 Active Time 13:30

add contact All Approaches Northbound Eastbound Southbound Westbound

Zone Activated alerts are generally used for breakdown lane or wrong way detection.

Camera images are attached to the email. Up to twelve emails will be sent per hour.

Alerts

Be Carefull

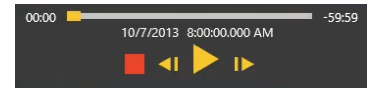
This will send an alert with an image every time the zone is activated, up to 12 times per hour. It should only be used for rare zone activations such as a wrong way zone or breakdown lane zone.

Publish your changes.

REPLAY

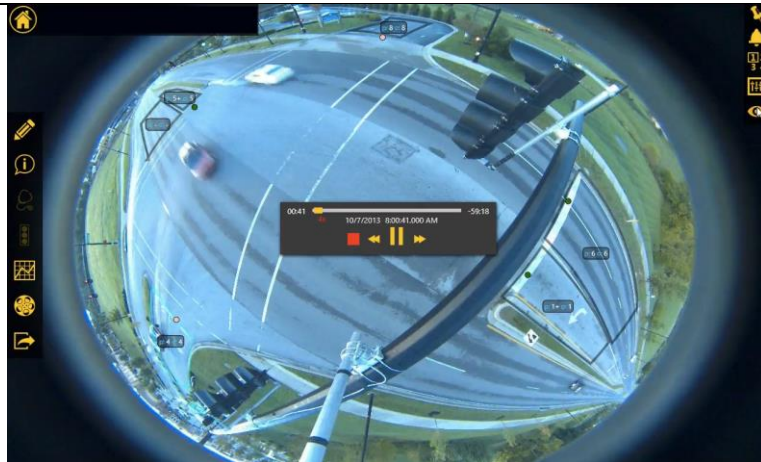


The Replay feature enables playback of data (images, phases, calls) acquired from a GRIDSMART Processor by connecting a Data Stick or Drive. The Replay function (movie reel icon) is accessible on the Site Menu.



1. Connect the [Data Stick or Data Drive](#) to your GRIDSMART Client computer, then launch the Client.
2. Click the appropriate Site Card, then click Replay from the Site Menu. The Select Data to Display window opens.
3. Click Select a Folder, then use the Browse for Folder window to select one hour of data from the connected Data Stick or Data Drive.
4. Use the playback controls to review the data. Press the red Stop button when you have finished.

Fisheye View
Replay



Quad View
Replay



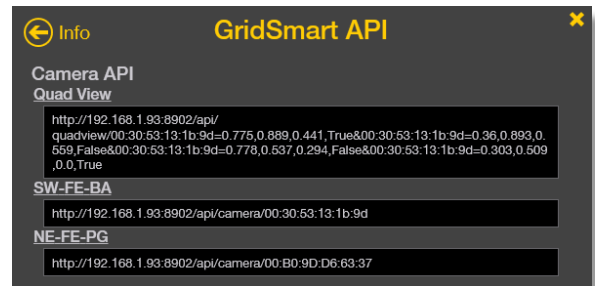
1. Begin with a freshly NTFS-formatted USB storage device obtained from GRIDSMART Support or a [Data Stick or Drive](#) that you have previously used with GRIDSMART.
2. Ensure that the device has enough free space to support your needs. A single Fisheye Camera requires approximately 100 GB per day.
3. Connect the USB storage device to a USB port on the GRIDSMART Processor and observe the front panel. Images and other data, including logs and counts, are automatically copied onto the device. On large capacity devices (>128GB), images are stored at a rate of 5-10 images per second until the drive is full. On small capacity devices, images are stored at approximately one image per second for three minutes only.
4. After collecting the data, disconnect the USB storage device from the Processor. This storage device is now a GRIDSMART Data Stick or Data Drive.

GRIDSMART API

The GRIDSMART Application Programming Interface (API) retrieves data and images from GRIDSMART Processors using HTTP. To open the API Panel, click Info, on the Site Menu, then click Show GRIDSMART API.

With the API, you can:

1. See live Quad View and single camera images in a web browser
2. Automate the retrieval of Counts and Realtime data.
3. View site history, current configuration and camera status.



See the [API documentation](#) on the GRIDSMART Support Portal for more details.



HARDWARE

Instructional videos may be found at the following URL:

<https://gridsmart.freshdesk.com/support/solutions/articles/27000026944-what-does-the-gs2-processor-front-panel-show-Front Panel – GS2>

Standard operation

During standard operation, the front panel shows a green Status LED, a green Camera 1 LED, current calls, and current phases.



For TS1 cabinets, the first line of LEDs indicates observed greens with a green or red LED. The second line of LEDs indicates the calls being made. Both phases and calls are ordered from left-to-right, 1 through 16.

For TS2 or ITS cabinets, the first line indicates observed phases with a green, amber, or red LED. The calls LEDs indicate calls from the first enabled BIU. For example, if both BIU 1 and BIU 2 are enabled, the calls LEDs will only indicate those calls being made on BIU 1.

The first Camera LED now indicates the status of configured cameras: Searching (flashing Amber), Missing any camera (flashing Red), All Online (solid Green). The second Camera LED now indicates whether there are new cameras (solid Green) or no new cameras (off).

Power On



When powered up, the front panel display will show a flashing amber Status and Camera 1 LED, phase states, and all call LEDs illuminated indicating recall.

The system will transition to a green status LED, indicating that the system has fully started, after about 45 seconds or less.

At this point, the system will continue to search for attached cameras, as indicated by the flashing amber Camera 1 status LED.

With properly connected and configured cameras, the system will transition to standard operation, as described previously, after about 2 minutes or less.

Factory default



If you are configuring a system for the first time and have not yet published, the camera status LEDs will be a bit different. As shown below, a green status indicates that you have 1 or more new cameras that have not yet been configured.

Update

During an update, the front panel will display a set of walking red, amber and green LEDs with all calls on.

DO NOT UNPLUG OR MANIPULATE THE SYSTEM DURING AN UPDATE. GS₂ updates will often require the Processor to be put into a special programming mode that will power down all front panel LEDs and operate the fan loudly at its highest speed. This is expected. After roughly 30 seconds, the fan will return to normal speed and the phase LEDs will turn all red as the system exits the special programming mode.

When the update process is completed, the phase LEDs will turn all green to indicate that the update stick can be removed.



Camera connectivity and replacement

A camera or connectivity problem will be indicated with Camera 1 LED flashing red and Camera 2 LED turned off.



Camera Offline

During camera replacement, the Camera 1 LED remains flashing red to indicate that a currently configured camera is missing. The Camera 2 LED will turn solid green when a new camera is online. This sequence will continue until all missing cameras have been replaced.

USB sync




USB data syncing will be indicated by a green flashing status LED.




USB image syncing will be indicated by an alternating green and amber flashing pattern. The transition from the data sync pattern to the image sync pattern indicates that all data has been successfully synced to the connected USB drive and that you can disconnect it if you do not need to record images.

The front panel on the GRIDSMART Processor displays useful operational information. The panel cycles between various display states.

Under normal operations, the front panel displays the cabinet type, calls and phases. For TS1 and TS2 cabinets, the panel displays the cabinet type in the upper left-hand corner. The seconds elapsed since system startup displays in the upper right-hand corner.

<p>TS1 Front Panel</p> <p>The second line displays phases. (*) = a green phase (-) = a non-green phase</p> <p>There are no green phases in this example.</p> <p>The third line displays calls. (*) = an active call (-) = no call</p> <p>Phases and calls are ordered 1 to 16 from left to right.</p>	 <p>The image shows the TS1 front panel display. The top line displays 'TS1' on the left and '106' on the right. The second line displays 16 asterisks, representing non-green phases. The third line displays 16 asterisks, representing no active calls. Red boxes highlight the first and last positions on the second and third lines, labeled '1' and '16' respectively. Red arrows point from the text in the left column to these positions.</p>
<p>TS2 Front Panel</p> <p>The second line displays phases and begins with PH. (r) = red (y) = yellow/amber (g) = green</p> <p>Capitalized letters, such as G for phases 1 and 5 (right), indicate the phase has just changed to the indicated state. A lowercase letter means the phase has been in the indicated state for more than one second.</p> <p>The third line, calls, begins with a BIU indicator. [1] indicates BIU 1.</p>	 <p>The image shows the TS2 front panel display. The top line displays 'TS2' on the left, 'A0' in the middle, and '84870' on the right. The second line displays 'PH' on the left, followed by 'GrrrGrrrrrrrrr****'. The third line displays '[1]' on the left, followed by '---*-----'.</p>
<p>Approximately every 45 seconds, the front panel displays the Camera status and Processor firmware version.</p> <p>To the right, the Camera status is Okay, and the Processor firmware is version 5.3.</p>	 <p>The image shows the front panel display for camera status and firmware version. The top line displays 'Cameras Okay'. The bottom line displays 'v5.3'.</p> <p>Camera Status and Firmware Version</p>

<p>If the Processor is connected to a network using the Network or Switch port, the firmware version will be replaced with the IP address on every other display of the Camera status.</p>	 <p>Cameras Okay 192.168.1.94:8902</p> <p>Camera Status and Network IP Address</p>
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The front panel displays add-on modules licensed on the Processor below the Camera Status. A single character represents each module.

C – Counts

P – Pedestrians

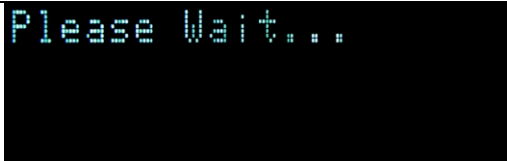
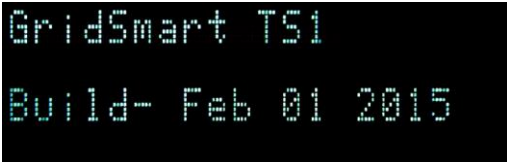

R – Realtime Data







B – Bicycles

For example, CP displays when the Processor is licensed for the Counts and Pedestrian Modules.

Power On

The following messages display after you connect power to the GRIDSMART Processor.

<p>Please Wait</p> <p>The first screen in the startup process.</p>	 <p>Please Wait...</p> <p>Startup 1 – Please Wait</p>
<p>Identifying Information</p> <p>The first line displays the configured cabinet type. TS1 is the factory default configuration.</p> <p>The second line, Build- Feb 01 2015, is diagnostic information for factory use.</p>	 <p>GridSmart TS1 Build- Feb 01 2015</p> <p>Startup 2 – Identifying Information</p>
<p>Boot All Call</p> <p>The first line indicates that the system is set to recall during the boot process.</p> <p>The second line displays the configured cabinet type (TS1).</p>	 <p>BootAllCall= 1 TS Type= 1</p> <p>Startup 3 – Boot All Call</p>

<p>Voltages</p> <p>Displays system voltages for factory use or critical failure diagnosis.</p>	 <p>Startup 4 – Voltages</p>
<p>Waiting</p> <p>Indicates that all hardware has successfully powered up. The system waits for the firmware to finish the boot process and take control.</p> <p>The counter in the upper right-hand corner counts backwards. If the Processor firmware does not successfully boot by the time the counter reaches zero, the Processor will be power cycled to attempt recovery.</p>	 <p>Startup 5 – Waiting</p>
<p>Cameras Rebooting</p> <p>The Camera ports are power cycled during the boot process.</p> <p>The second line displays the Processor firmware version.</p>	 <p>Startup 6 – Cameras Rebooting</p>
<p>No Cameras</p> <p>It may take a few minutes for the Cameras to become fully operational after Camera Rebooting.</p> <p>The second line displays the Processor firmware version.</p>	 <p>Startup 7 – No Cameras</p>
<p>New Camera</p> <p>If you are configuring a Processor for the first time and have not yet Published, the second line displays the number of new cameras to configure.</p>	 <p>New Camera</p>
<p>Camera Offline</p> <p>The front panel displays the number of cameras with connectivity or camera problems next to Offline.</p> <p>On the right, the Camera status indicates that the only configured camera is currently offline.</p>	 <p>Camera Offline</p>

Camera Replacement

If you must replace a camera, the front panel displays the message on the right after disconnecting the currently configured camera and connected the replacement camera.

Offline represents the camera missing from your current configuration.

New represents the replacement camera you must Configure and Publish.



```
Cameras
New: 1
Offline: 1
v5.3
```

Camera Replacement



```
Cameras
New: 1
Offline: 1
v5.3
```

Cleaning & Maintenance

Regular cleaning of the Camera lens is recommended.

1. To safely clean the Camera lens, use GRIDSMART Lens Cleaner or another non-abrasive cleaner. Never use alcohol- or ammonia-based window cleaners.
2. Spray or apply a small amount of cleaner to the lens.
3. Gently wipe the surface with a soft, lint free cloth. Do not use paper towels since they definitely will scratch the lens.

SUPPORT

Before contacting either your distributor or GRIDSMART Support, please prepare as follows: (1) if possible, connect a Data Stick or Data Drive to the problem Processor to collect diagnostic data; (2) export your site configuration and email it to your distributor or GRIDSMART Support.

Your first line of support is your local distributor. If your local distributor is unavailable or cannot resolve your situation, we are happy to help. There are three ways to contact GRIDSMART Support:

Email: support@gridsmart.com

Web: gridsmart.freshdesk.com

Phone: +1 866 652 5347

Send a Site to GRIDSMART Support for Review or Assistance

If you would like GRIDSMART Support to review your site configuration, you can easily Export a site from the GRIDSMART Client and email it to GRIDSMART Support as follows.

1. Launch the Client and click the appropriate Site Card.
2. Click the Export icon from the Site Menu.
3. Save the file with a valid Windows filename. Make sure the file has the GRIDSMART *.ags extension.
4. Email the *.ags file to GRIDSMART Support.

Data Stick or Data Drive

A USB stick or external hard drive can be used to collect and synchronize data and site configurations between GRIDSMART Processors and the Client. These USB devices must be formatted as NTFS volumes. Make sure there is enough free space on the drive before use. Otherwise, data may not be synchronized.

Import and Use a Modified Site

If you experienced problems with your site and requested GRIDSMART Support to review the site configuration, you will likely receive an email from GRIDSMART with your modified site configuration attached as a GRIDSMART *.ags file. Follow this procedure to review that configuration and put it into operation on your site.

1. Save the *.ags file from the email onto your hard drive.
2. Launch the GRIDSMART Client and click Import in the top right-hand corner of the Sites Homepage.
3. Navigate the Windows file system to find the *.ags file. Select the file and click Open.
4. The appropriate Site Card on the Sites Homepage will have a hash mark fill pattern indicating unpublished changes. Click that Site Card to enter the Site View screen.
5. Review the changes. If they are significant, these changes may be hard to visualize as the unpublished changes may significantly overlap the current published configuration.
6. Click the Configure pencil on the Site Menu to enter the Site Configuration screen. There you will be able to see the new configuration without seeing the existing configuration overlaid.
7. If you are connected to the site, you can Publish the changes. If you are not connected and do not wish to take a laptop into the field, consider using the [Publish to Drive](#) feature.



VNC



Virtual Network Computing (VNC) enables you to remotely access the GRIDSMART Client resident on the Processor as well as the Processor's Windows operating system.

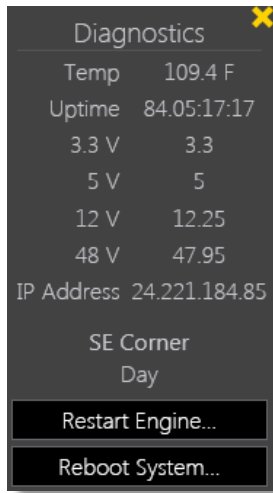
[Log onto GRIDSMART Cloud](#) for instructions.

Upgrade a GRIDSMART Processor with an Update Stick

A GRIDSMART Update Stick is a USB flash drive, provided by GRIDSMART Support or your distributor, which automatically upgrades or repairs the software on the GRIDSMART Processor. A label on the stick will indicate the software version and date.

Diagnostics

Click the Stethoscope icon on the Site Menu to see diagnostic data for the current site.



Temperature and voltages displayed are updated every 30 seconds.

Use Restart Engine and Reboot System when necessary for troubleshooting.

1. If you have previously been using VNC, you must ensure that there are no windows or files open on the GRIDSMART Processor.
2. Disconnect everything from the GRIDSMART Processor except the camera(s), power cable and controller connections. You must disconnect your laptop and all network cables as well as any peripherals such as mouse, monitor and/or keyboard.
3. Insert the provided Update Stick into one of the USB ports.

GS₂ Processor

1. The GS₂ Front Panel LEDs will display three LEDs “walking” from left to right.
2. After a few minutes, the GS₂ phase LEDs will turn GREEN. You may remove the USB stick once all the phase states are GREEN.

Legacy Processor

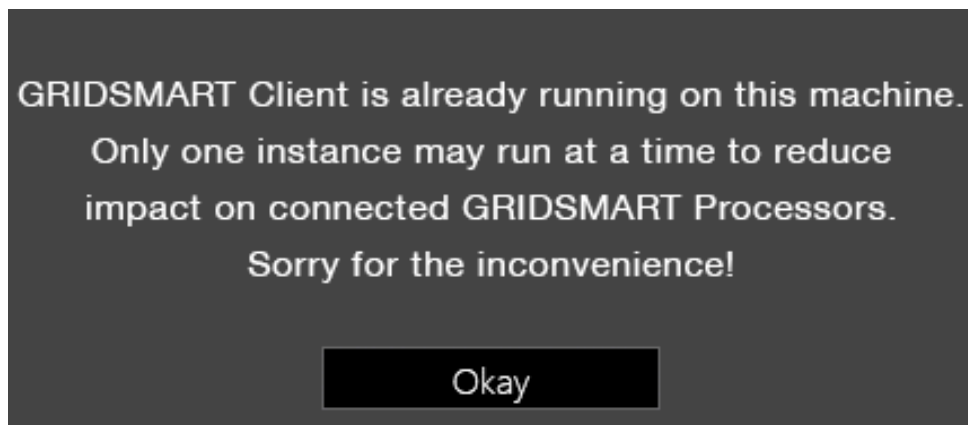
1. Observe the front panel display of the GRIDSMART Processor. The Legacy Processor will display instructions.
2. The Legacy Front Panel will instruct you to remove the Update Stick to complete the process.
4. The GRIDSMART Processor will reboot. After several minutes, your site will be operational and updated.
5. You may now reconnect any previously disconnected peripherals or network cables.

Replace a Camera


1. Disconnect the non-functioning camera from the GRIDSMART Processor, then connect the replacement camera.

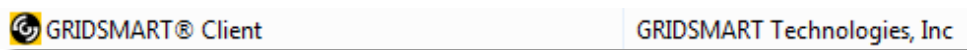
2. Wait four minutes before continuing to the next step.
3. Connect to the Processor, launch the GRIDSMART Client, and then click the appropriate Site Card.
4. Click the Configure pencil on the Site Menu. The Site Configuration screen displays a Replace Cameras option.
5. Click Replace Cameras and proceed by pairing the zones from your missing camera with the images from your new camera. Configure the camera heading and height when prompted.
6. Adjust your zones and masks as needed.
7. Publish the changes.


One Client Instance at a Time



Uninstall or Repair the GRIDSMART Client

1. Open Programs and Features by clicking the Start button , clicking Control Panel, and then clicking Programs and Features.



2. Select the GRIDSMART Client, then click Uninstall.
3. To repair the Client, click Repair. To remove the Client, click Uninstall.
4.  If you are prompted for an administrator password or confirmation, type the password or provide confirmation.

THANK YOU

At GRIDSMART, your satisfaction is our top priority. We value your feedback and want to hear from you. Please stay in touch!

Twitter: <https://twitter.com/GRIDSMARTTech>

Facebook: <https://www.facebook.com/pages/Gridsmart/906447382729795?ref=hl>

Vimeo: <https://vimeo.com/gridsmart>

LinkedIn: <https://www.linkedin.com/company/aldis>

Support Portal: <https://gridsmart.freshdesk.com>



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