

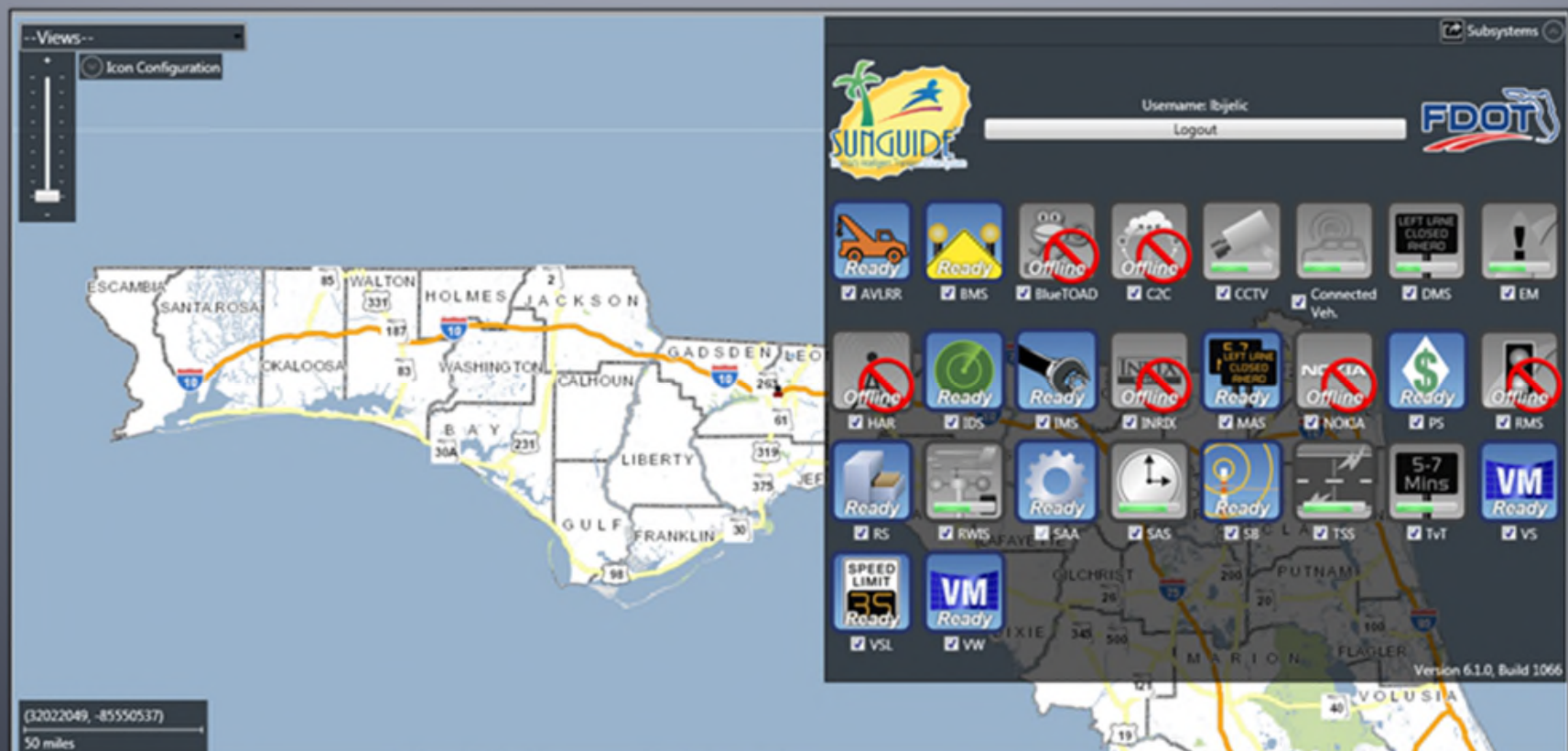
Release 6.1

# SunGuide Operator Training

Dates of Training, 2015

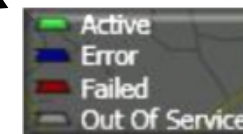
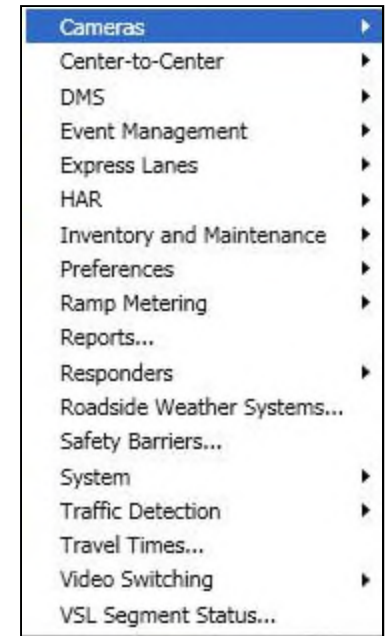


# Operator Map



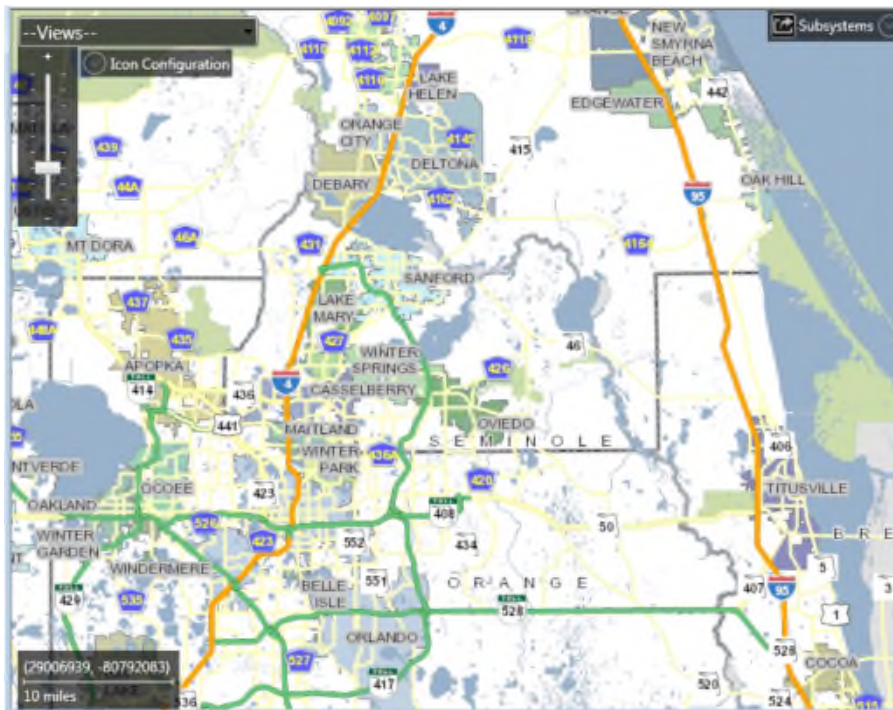
# Map: General Concepts

- Main Context Menu
  - Right click on background of map
- Common functionality for each subsystem
- Device Status
  - Active: Operating normally
  - Error: Communication or other problem, will be polled normally
  - Failed: Several consecutive errors, will no longer be polled normally
  - Out of Service: Manually disabled
  - Device icons typically colored based on status
- Device / Event Icons
  - Left click: Status
  - Right click: Context menu for item

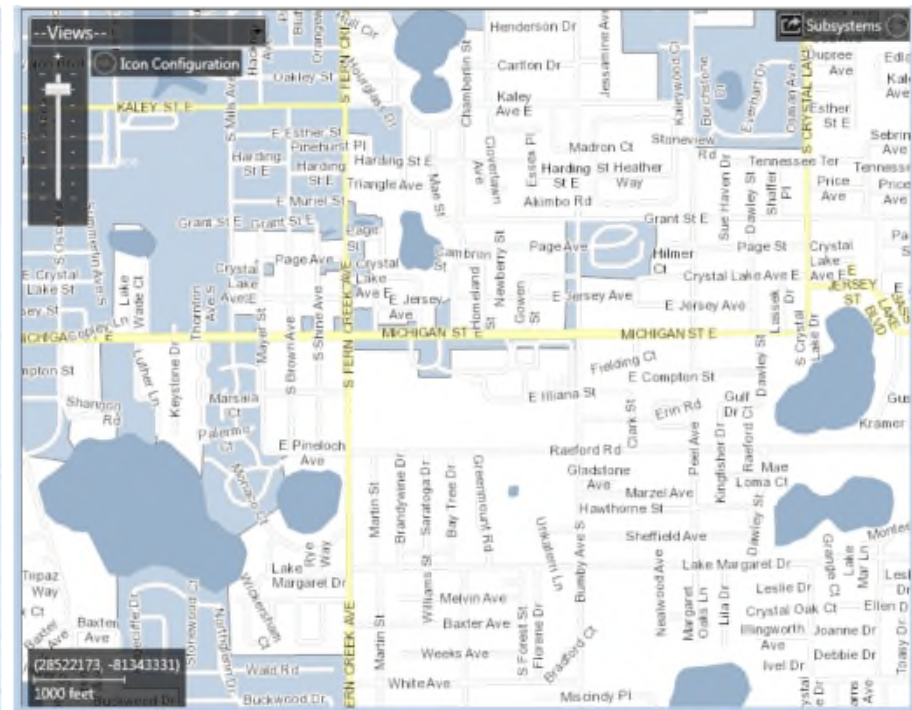




# New Map Tiles



- County Border
- City Border
- Shields



- Arterial Road Names
- City Road Names

# Embedded Log In/Subsystems Status

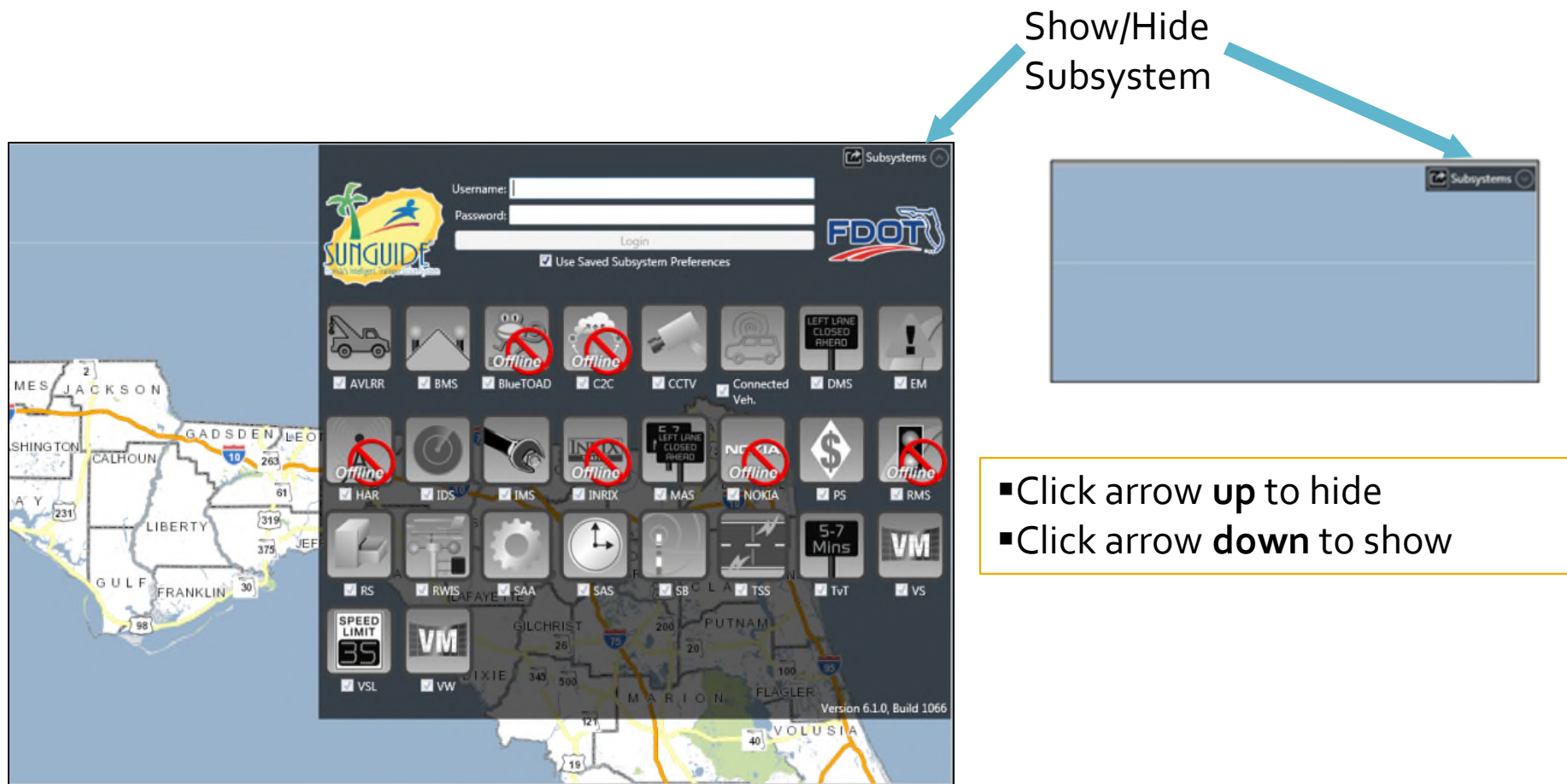
Diagram illustrating the Embedded Log In/Subsystems Status interface and its toggle functionality.

The main interface (left) displays a map of Florida and a grid of subsystem status icons. The "Subsystems" button in the top right corner is used to toggle the subsystem status view.

Two arrows point from the "Subsystems" button to the "Show/Hide Subsystem" label, indicating the toggle action.

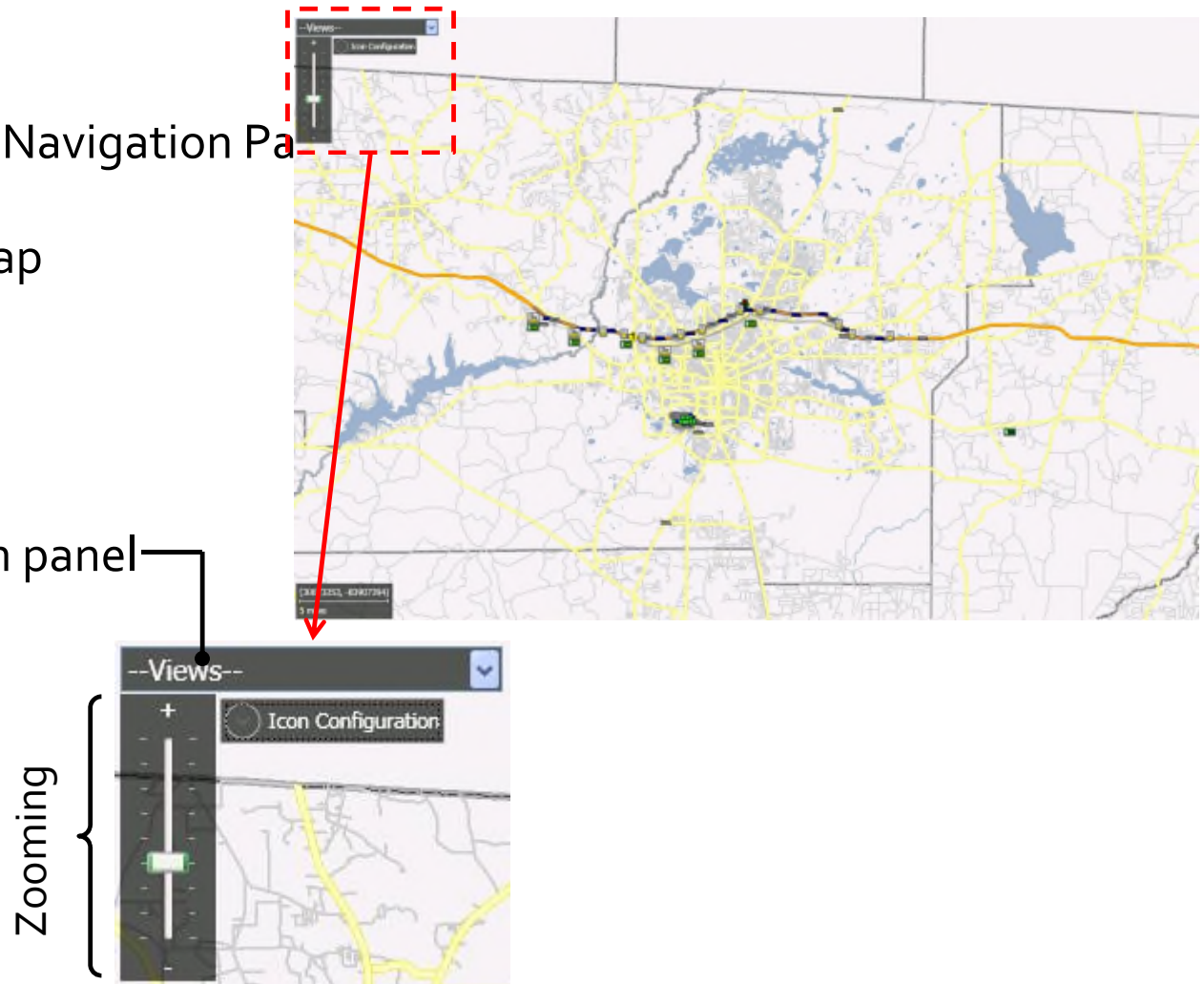
The "Show/Hide Subsystem" label points to a simplified view of the subsystem status grid (right).

- Click arrow **up** to hide
- Click arrow **down** to show



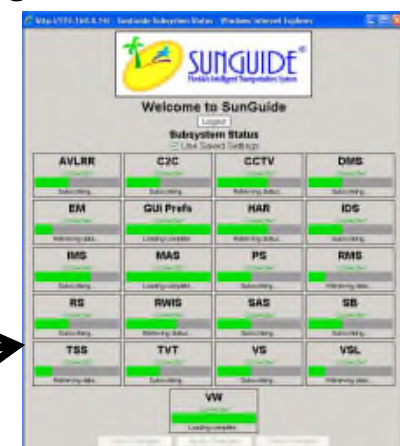
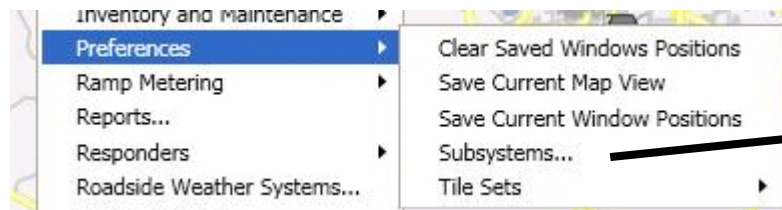
# Map: Managing Your View

- Zooming:
  - Zoom buttons in Navigation Panel
- Panning:
  - Click and drag map
- Jump to Views:
  - Cities
  - Districts
  - Areas of Interest
  - Drop down box in panel



# Map: Preferences

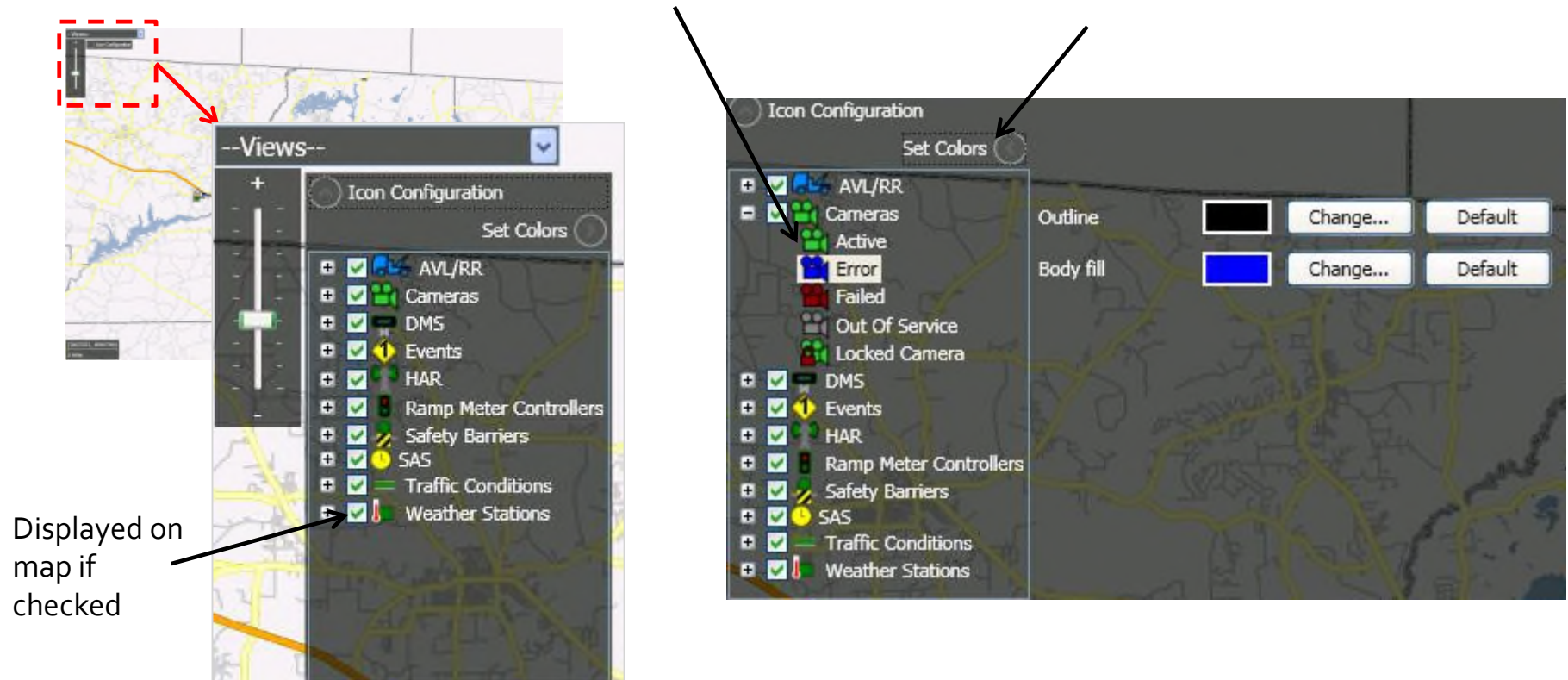
- Preferences Menu
  - Save Current Map View
    - Re-centers zoomable area of map
  - Save Current Window Positions
    - Windows will reopen to current position
    - General windows will reopen on login
  - Subsystems
    - Opens the window listing the subsystems that the user is logged into
  - Tile Sets
    - Allows user to change the “tiles” used to draw the map





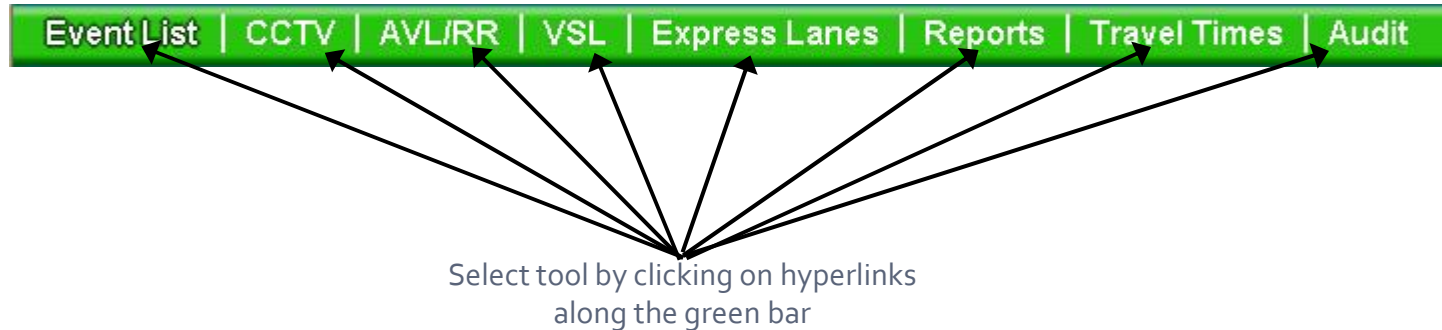
# Map: Icon Configuration

- Icon Configuration is found at the top left corner of the map
- Selected icons are displayed on the map
- The color of icon states can be altered





# Map: Tabbed Window



- To open the Tabbed GUI window, Right-click on Map
  - Event Management->Event List
- The Tabbed GUI window contains a common “utility bar” at the top of the window.
  - Allows operators to toggle between different SunGuide tools within the same window without having to go back to the operator map

# WPF Windows and Lists

- Dialog windows are being converted to Windows Presentation Framework
  - Abandoning Internet Explorer, HTML, javascript for more robust GUI with richer user experience
- Ribbons on top and context menus on items provide access to functions to be invoked on the device
- Lists on top have multiple columns that support sorting, quick filtering, and advanced
- Details on bottom have tabs corresponding to selected item in the list
- Status bar on bottom provides acknowledgement or error messages
- Slider bar in between list pane and details pane can adjust real estate between the panes

# WPF Window Features

**Sort Button**

**Ribbon Controls**

**Filter Button revealing filter menu**

**Hover mouse between list and details pane to reveal slider bar for resizing between panes**

**Ribbon Controls**

**List Pane**

Name	Op Status	Roadway/Directi...	Temperature	Average Wind Spe...	Avg. Wind C
RWIS_I10MM193.5...	Failed	I-10 Westbound	(Blanks)	0	N
RWIS-2	Out of Service	I-10 Eastbound	(Non blanks)		

**Details Pane**

Overview | Air/Visibility | Pavement | Precipitation | Ten

Temperature: **N/A** °F      Wind: **0** MPH **N**

Relative Humidity: **0** %      Air Pressure: **0.00** in Hg

Precipitation Type: **Invalid Value**      Visibility: **Fog**

Precipitation Rate: **0.00** in/hr      Last Poll: **08/05/2015 17:27:03**

**Status Bar**

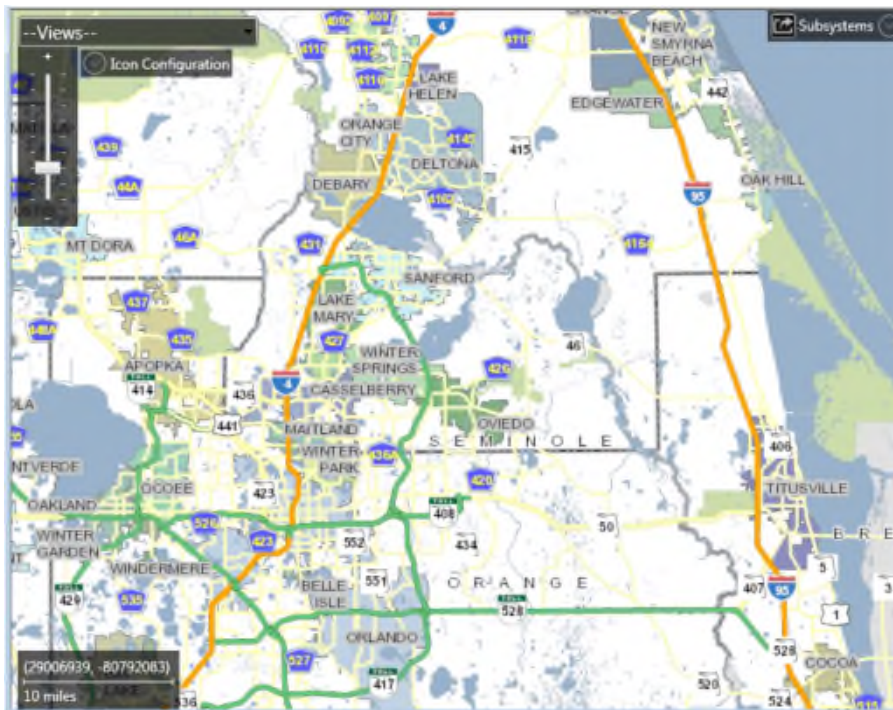
0 0 0 No status messages reported.



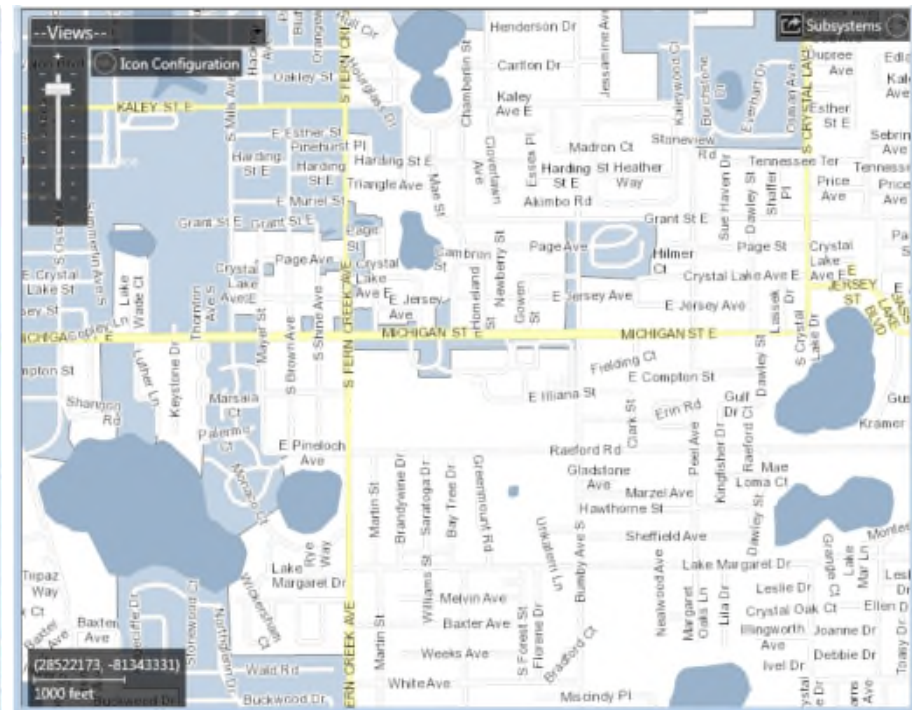
# What's New?

- Release 6.1 Major Enhancements:
  - SAA User Management
  - NOKIA Interface
  - ONVIF CCTV Driver
  - Wrong Way Driving Interface/Alarms
  - Beacon Management Subsystem and Driver
  - RWIS NTCIP v2 and v3 and GUI Improvements
- Several Minor Enhancements and Footprint Fixes
- Release 6.1 Features List Webpage:  
<http://sunguidesoftware.com/releases/release-6-1-current>

# New Map Tiles



- County Border
- City Border
- Shields



- Arterial Road Names
- City Road Names

# Embedded Log In/Subsystems Status

Diagram illustrating the Embedded Log In/Subsystems Status interface and its interaction with a separate Subsystems window.

The main interface (left) displays a map of Florida and a grid of subsystem status icons. The grid includes icons for AVLRR, BMS, BlueTOAD, C2C, CCTV, Connected Veh., DMS, EM, HAR, IDS, TMS, INRIX, MAS, NOKIA, PS, RMS, RS, RWS, SAA, SAS, SB, CLA, TSS, TvT, VS, VSL, and VW. Several icons are marked as "Offline" with a red 'X' over them.

The Subsystems window (right) is a separate pane that can be shown or hidden. It contains a "Subsystems" button in the top right corner.

Instructions for interacting with the Subsystems window:

- Click arrow **up** to hide
- Click arrow **down** to show



# VoD: Camera List (FP 2716)

- Camera List on left side as alternative to map icons
- Translucent button to show/hide:



# VoD: Camera Controls with New Digital Zoom



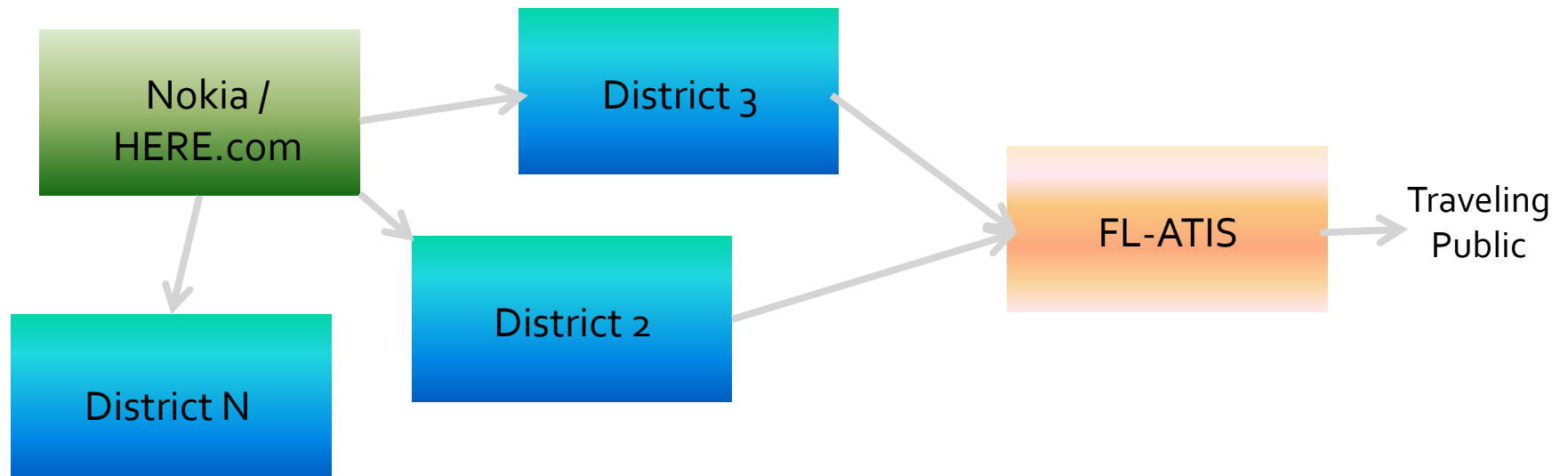
# VoD: Additional New Features

- Improved VOD PTZ (FP 2730, 2887)
- VLC Digital Interactive Zoom Functionality from VOD (FP 2508)
- Add ability to add a camera for Video on Desktop purposes but has no camera controls (FP 2730)
- Added ability to configure and use remote center CCTV video streams within Video on Desktop
- Added option stretch Video on Desktop windows by default (FP 2458)



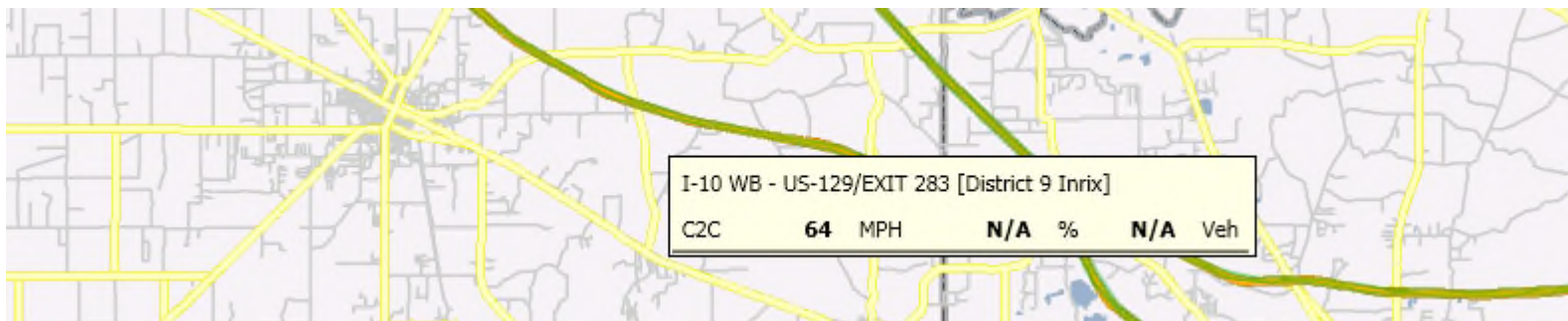
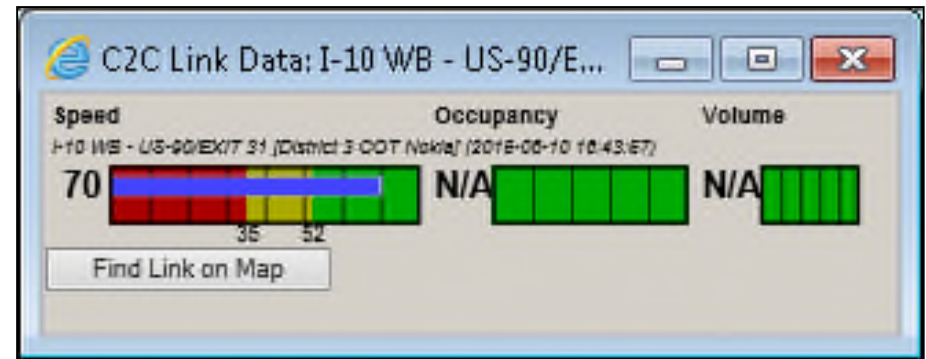
# TSS: Nokia / HERE.com Data

- What is Nokia / HERE.com?
  - Third Party Vendor that FDOT has paid to provide travel speed data
  - Data purchased includes travel speed data to FDOT for all of I-10 and the northern end of I-75
  - Available to all districts



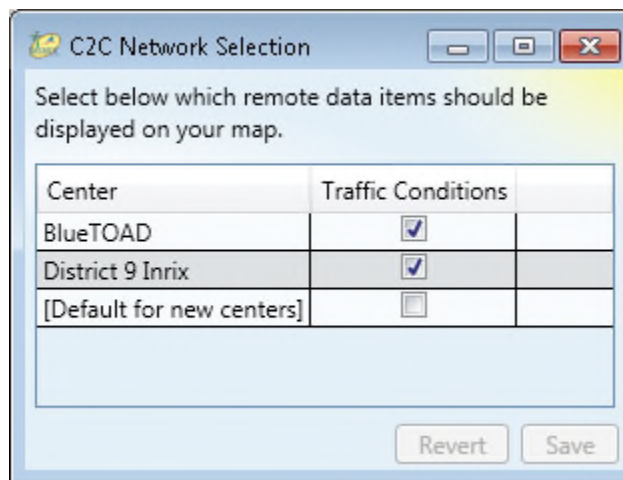
# TSS: Nokia / HERE.com Data

- Data includes average per lane speeds, time/date and link names only
- Does not include occupancy, volume, polled values, or device status



# TSS: BlueTOAD

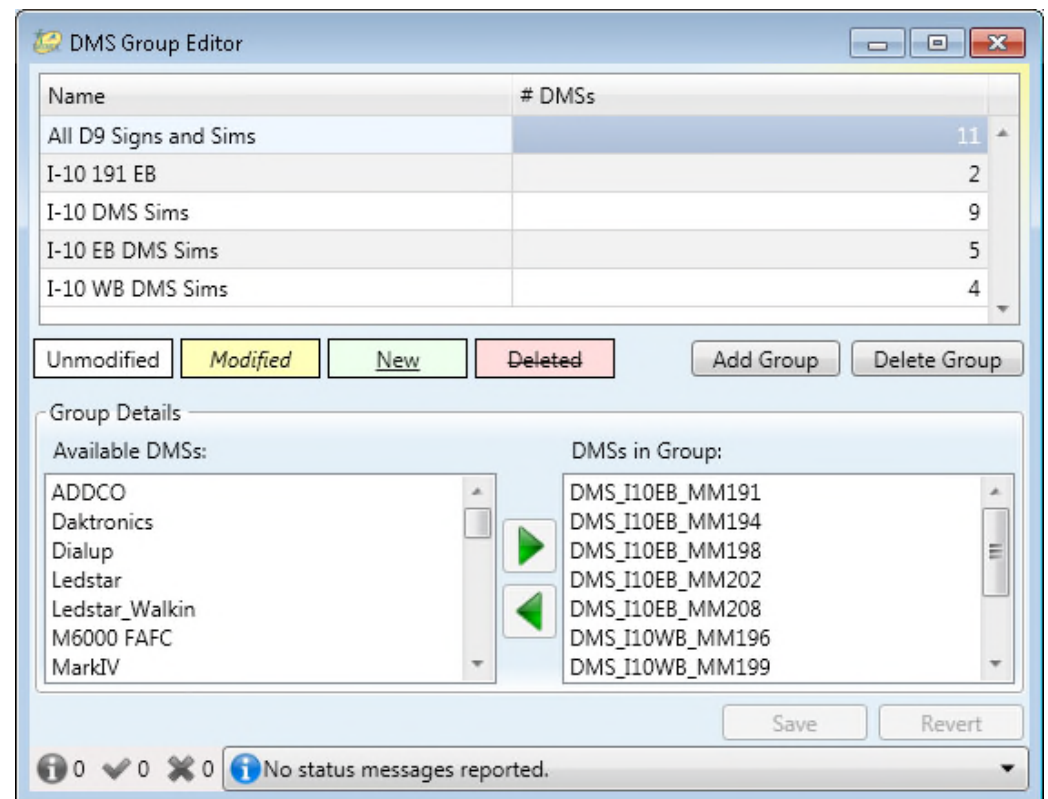
- BlueTOAD (Bluetooth Travel-time Origination And Destination) detects anonymous MAC addresses through Bluetooth.
- The system calculates travel time through analysis of subsequent detections.
- Data received in SunGuide in a similar fashion to INRIX.





# DMS Groups

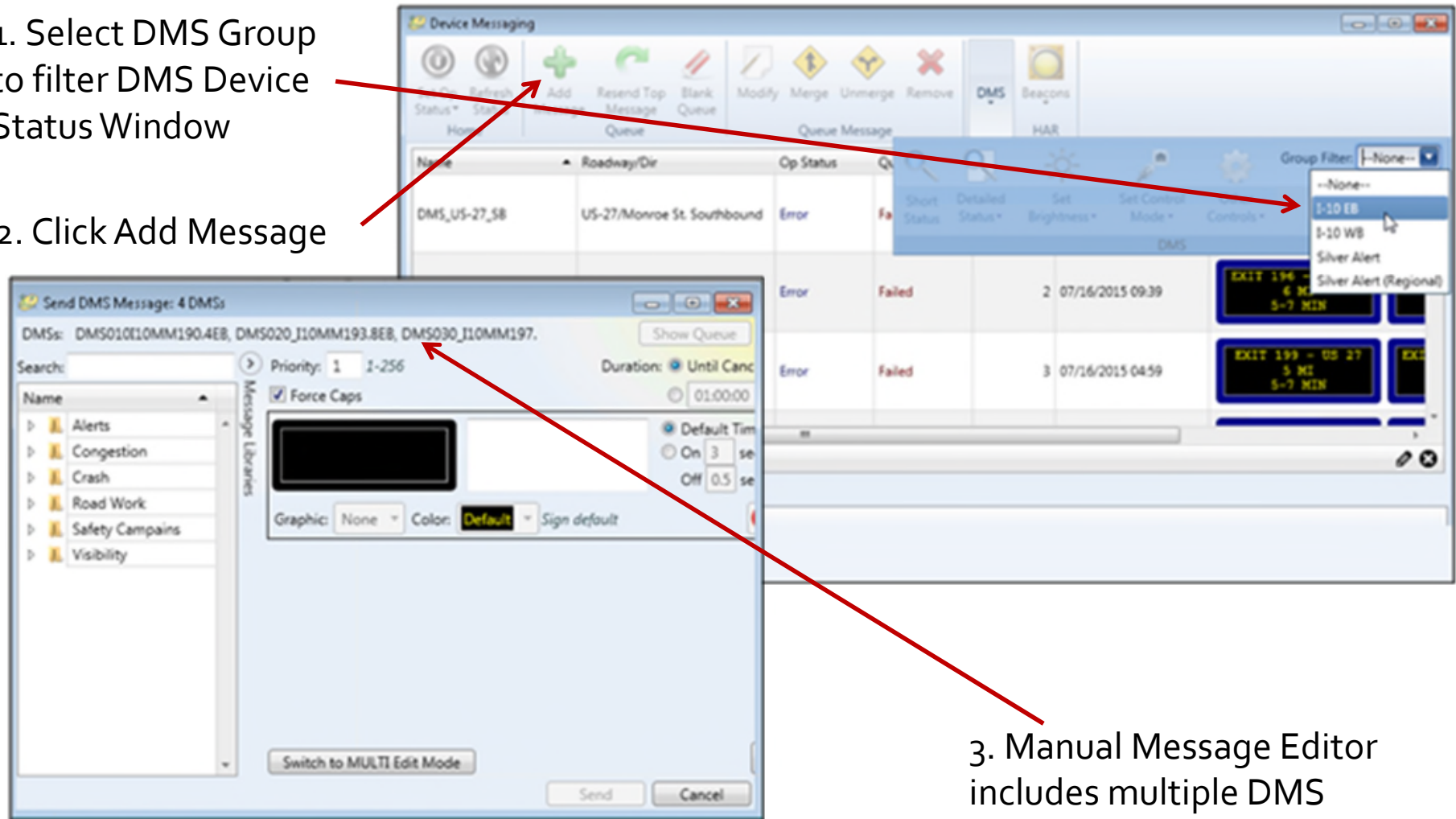
- Add, Delete, or Rename Groups up top
- Add or remove DMSs in the selected group at the bottom
- Be sure to click save and verify a successful message in the status messages at the bottom
- Use Groups in place of single DMSs elsewhere in SunGuide – manual messaging, response plan, SAS schedules, etc.



# DMS Groups: Manual Message

1. Select DMS Group to filter DMS Device Status Window

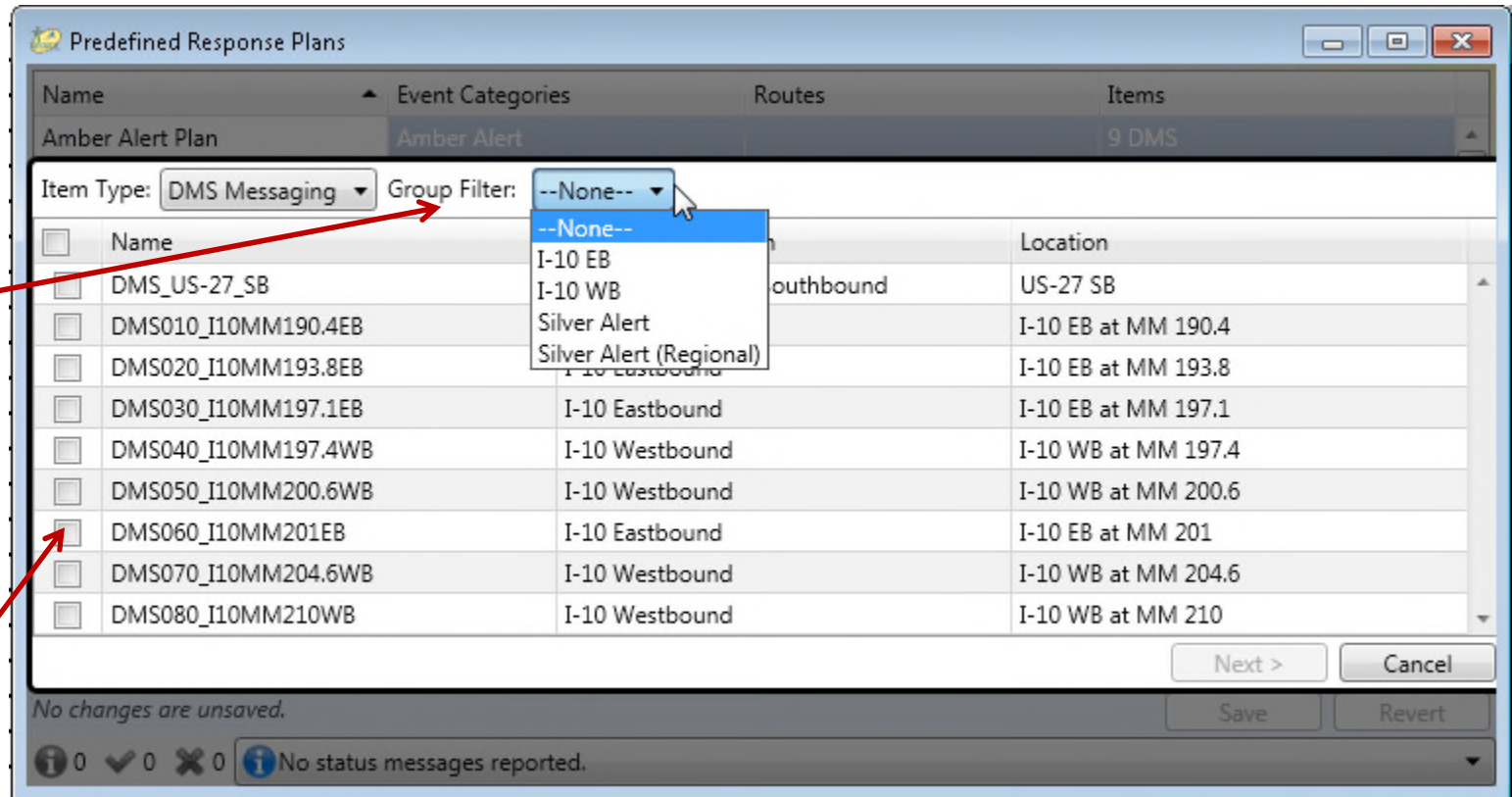
2. Click Add Message



3. Manual Message Editor includes multiple DMS

# DMS Groups: Predefined Plan

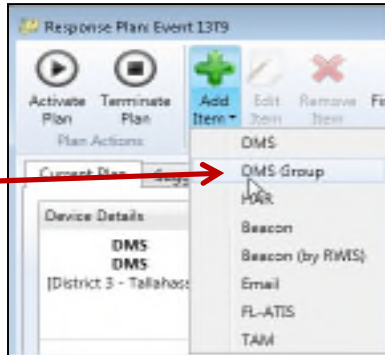
1. Filter DMSs by DMS Group Filter



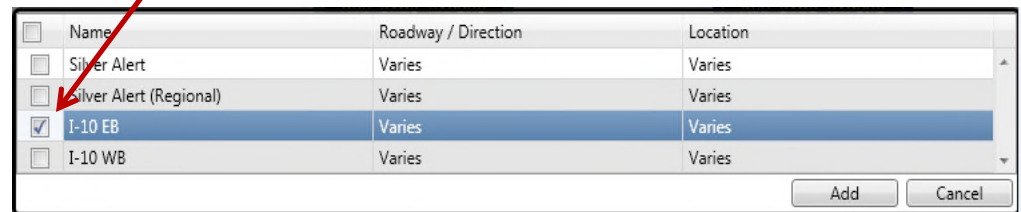
2. Select DMSs to add to plan  
Note: DMSs within the group are added individually, not as a group object

# DMS Groups: Response Plans

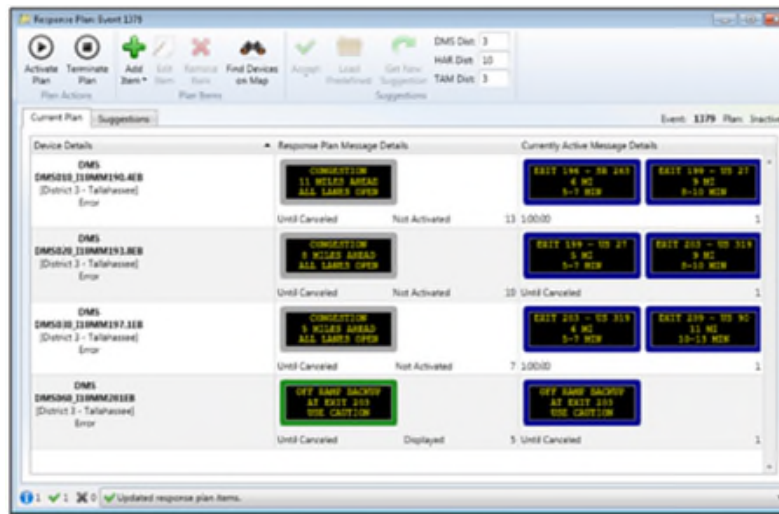
1. Add DMS Group item to Responses Plan



2. Select which group to add to response plan



3. DMSs added individually to response plan.  
Note: not added as a group



4. DMSs can be multiple-selected and have their message changed



# DMS Groups: Scheduled Items

Add Group to  
Scheduled item

Add Scheduled Item: New Scheduled Item [Camera Presets]

Schedule: **Camera Presets**

Item Name: New Scheduled Item

Scheduling Items Actions

Action Type: DMS Group Messaging

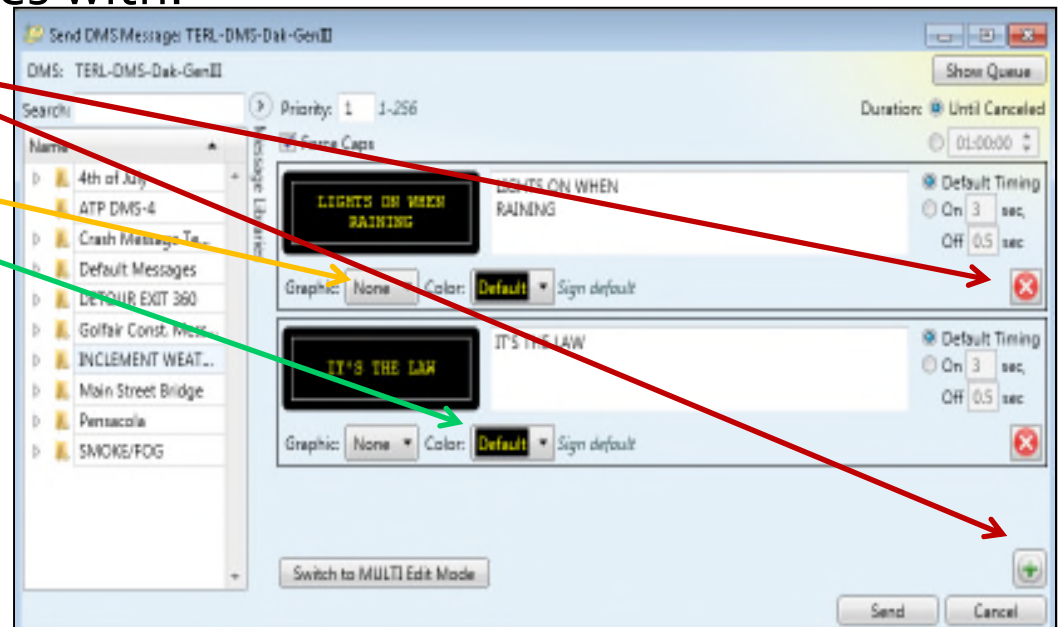
Name	Way / Direction	Location
<input type="checkbox"/> Silver A		Varies
<input type="checkbox"/> Silver A		Varies
<input checked="" type="checkbox"/> I-10 EB		Varies
<input type="checkbox"/> I-10 WB		Varies

Message text must be entered.

Save Cancel

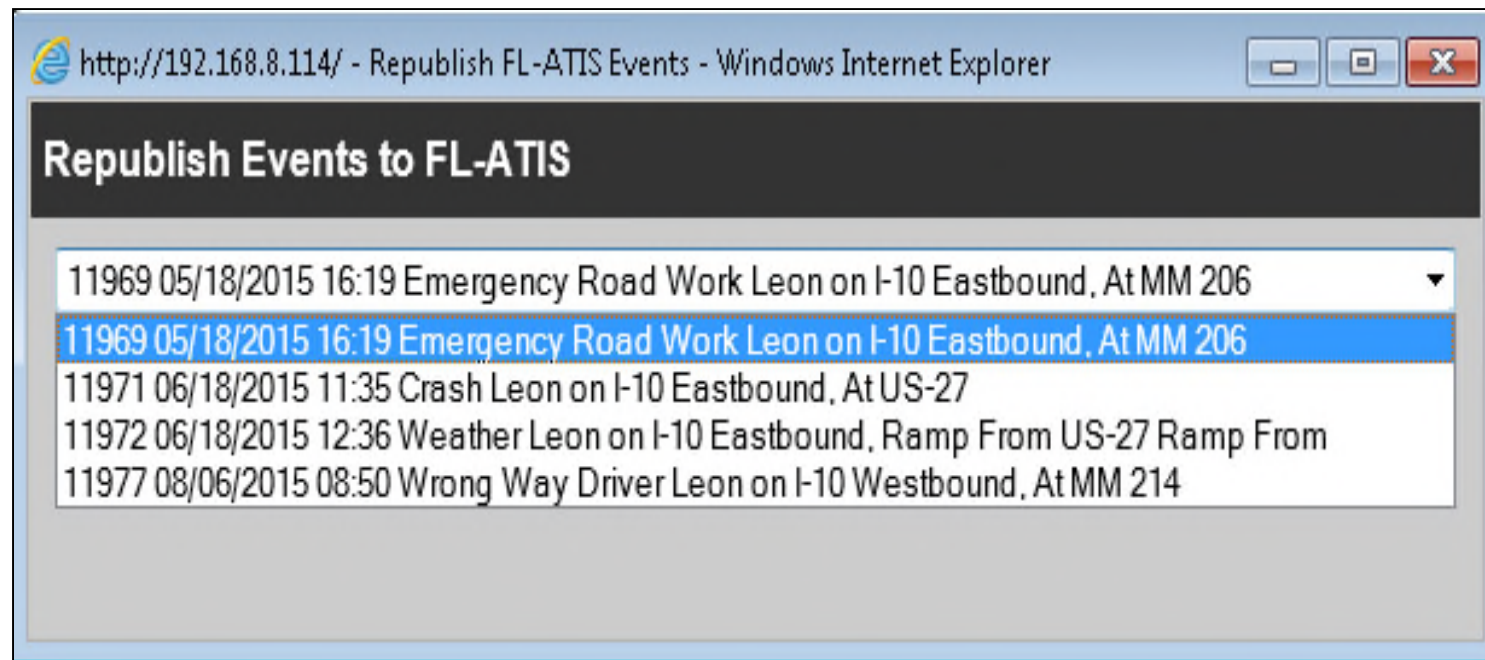
# DMS: Contractions as Approved Words

- Send message
  - From Short Status Window
  - Or, from "Add Message" button within the Device Messaging Window
  - "IT'S" and other contractions can now be added as an approved word
- Ability to create messages with:
  - Multiple pages
  - Graphics
  - Custom Colors



# FL-ATIS: Re-Publish

- List is filtered to not include closed events



# EM: Response Plan Status

Response Plan: Event 11972

Activate Plan Terminate Plan Add Item Edit Item Remove Item Find Devices on Map Accept Load Predefined Get New Suggestion

DMS Dist: 7  
HAR Dist: 50  
TAM Dist: 7

Event: 11972 Plan **Active**

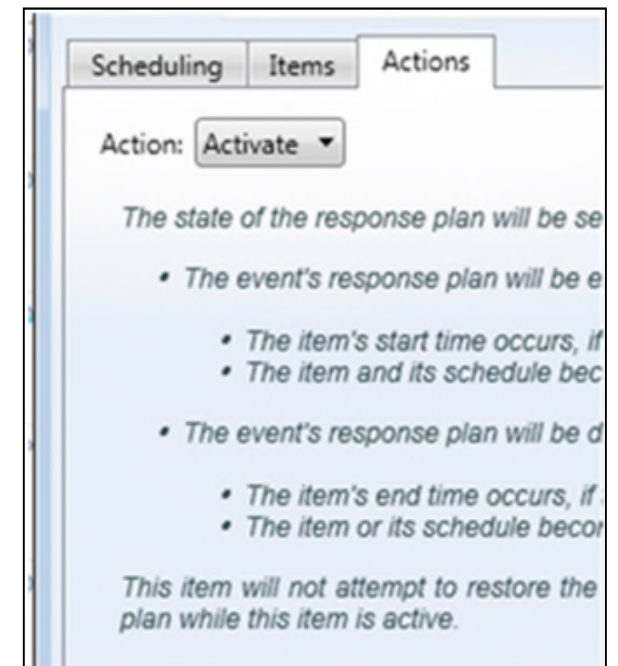
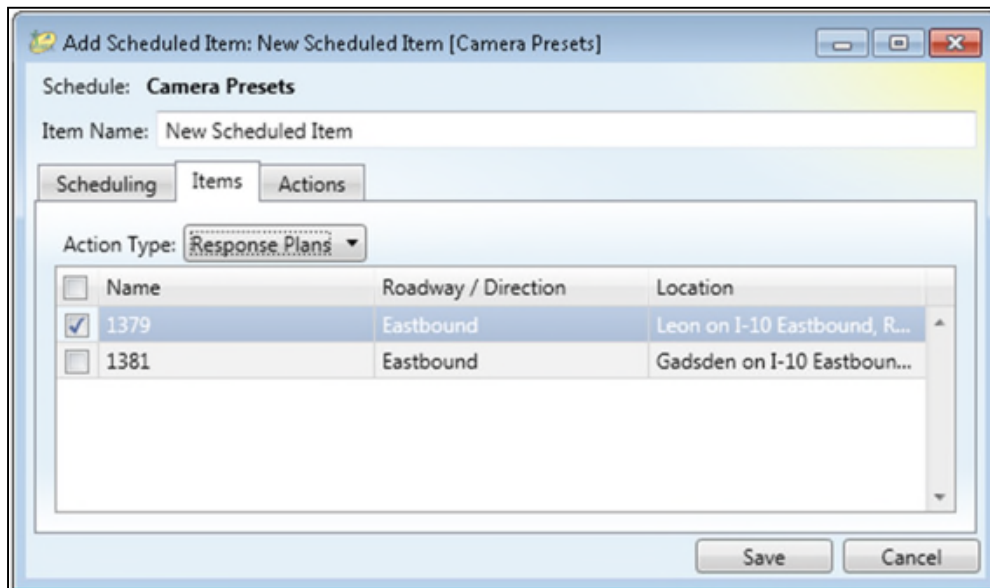
Device Details	Response Plan Message Details	Currently Active Message Details
<b>511 ATIS</b>	Weather Event in Leon county, going Eastbound on I-10 rampFrom US-27 Ramp From with All lanes blocked Last updated 7/27/2015 4:10:19 PM	
<b>Beacon</b> <b>BMS I-10 MM199</b> [District 9] Failed	<b>On</b> Until Canceled Unknown (No MAS Queue) 255	<b>Off</b> Until Canceled 255
<b>Email</b>	<b>Email Groups:</b> 4.2.2 IVV Mail list, IV&V Mail List, Test Cas <b>Subject:</b> <b>Title:</b> Weather Alert: <b>Location:</b> LEON I-10 EB Ramp From Exit 199199 US-27 <b>Body:</b> All Lanes Blocked, Left Shoulder Open	
<b>HAR</b> <b>HAR</b> [District 9]	<b>WEATHER ALERT RAMP FROM US-27[NL] ON I-10 EASTBOUND[NL]ALL LANES BLOCKED.</b> Until Canceled Unknown (No MAS Queue) 7	Unknown HAR

No status messages reported.



# Add New Schedule Item: Response Plan Actions

- For response plans, the user chooses an event on the items tab.
- The action choices are to activate or deactivate the response plan for the chosen event.



# How Do Beacons Work?

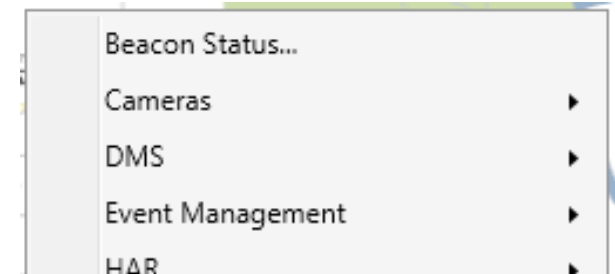
- Beacons indicate that a static message is active, i.e. “Fog Advisory When Flashing”
- Activations are treated like messages in the MAS queue – one or more messages present will activate the beacon
- SunGuide can activate / deactivate Beacons manually or from a response plan or schedule

# Beacon: Context Menu Options

- BMS Device Context Menu  
(right-click on local BMS device)



- BMS Context Menu  
(right-click on Operator Map)



# Beacon Configuration

- Add, Edit, Remove beacons
- Enter typical name and communications info
- Specify Sign Type to match static sign text
  - Used for including beacon in response plans

The screenshot shows the 'Beacon Configuration' window. It features a toolbar with icons for 'New Beacon', 'Delete Beacon', 'Find on Map', and 'Place on Map'. Below the toolbar is a table with the following data:

Name	Sign Type	Host/IP	Port	Protocol	Driver	Poll Cycle	Roadway	Direction	Latitude	Longitude	Location Desc. ▲	Manufacturer
BMS I-10 MM199	High Winds	192.168.8.114	50101	WebRelay	WebRelayDriver	12	I-10	Eastbound	30488621	-84311141	I-10 WB MM 199	Xytronix

Below the table are buttons for 'Unmodified', 'Modified', 'New', and 'Deleted'. At the bottom, there is a status bar showing 'No changes are unsaved.' and a 'Save' button. A notification bar at the very bottom indicates 'Modified beacon BMS I-10 MM199'.



# Beacon Device List and Queue Status

- Device status on top in columns
- Status of selected device's queue on bottom

The screenshot displays the 'Device Messaging' application window. The top toolbar includes buttons for 'Set Op Status', 'Refresh Status', 'Add Message', 'Resend Top Message', 'Blank Queue', 'Modify', 'Merge', 'Unmerge', 'Remove', 'DMS', and 'Beacons'. Below the toolbar is a table with columns: Name, Roadway/Dir, Op Status, Queue State, No. Msgs, Last Sent, Current Message, and Type. The table contains one entry: BMS I-10 MM199, I-10 Eastbound, Active, Completed, 2, N/A, On, Beacon. Below the table is a filter section with a checkbox labeled 'Starts with([Type], 'Beacon')'. At the bottom, there are tabs for 'Status' and 'Queue'. The 'Queue' tab is active, showing a table with columns: Priority, Message, Owner, Event, and Expiration. The queue table has two entries: Priority 1, Message On, Owner cpackard, Event, Expiration Until Canceled; and Priority 255, Message On, Owner cpackard:DEV04:5748, Event 11972, Expiration Until Canceled. At the very bottom, a status bar shows '0' errors, '15' successes, and '5' failures, along with a message: 'Refreshed status of beacon BMS I-10 MM199.'

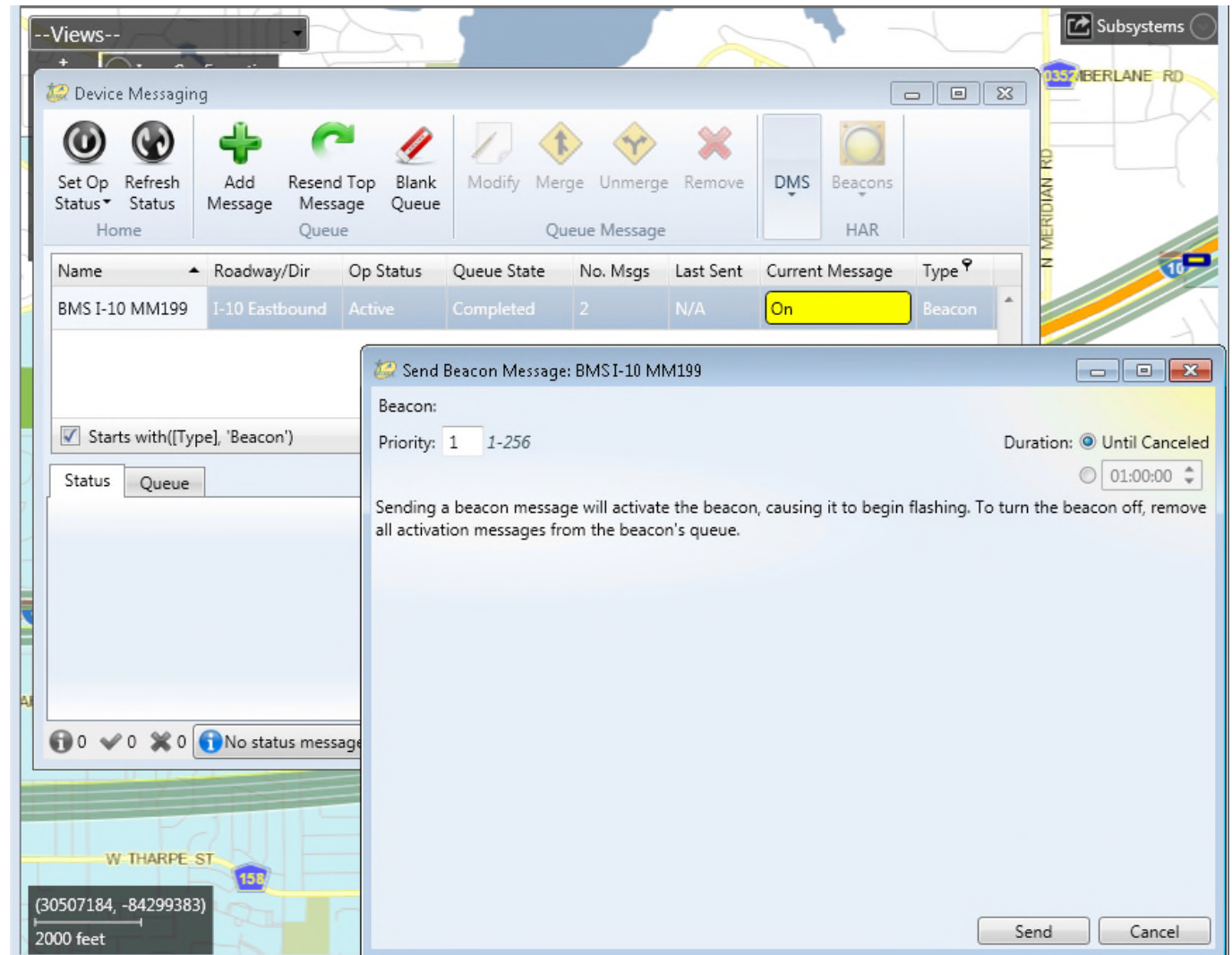
Name	Roadway/Dir	Op Status	Queue State	No. Msgs	Last Sent	Current Message	Type
BMS I-10 MM199	I-10 Eastbound	Active	Completed	2	N/A	On	Beacon

Priority	Message	Owner	Event	Expiration
1	On	cpackard		Until Canceled
255	On	cpackard:DEV04:5748	11972	Until Canceled

# Beacon: Manual Activation

- Select Beacon
- Click “Add Message”
- Select Priority
- Click Send



# RWIS: Status

## ■ Weather Conditions at RWIS Station

### ■ Air

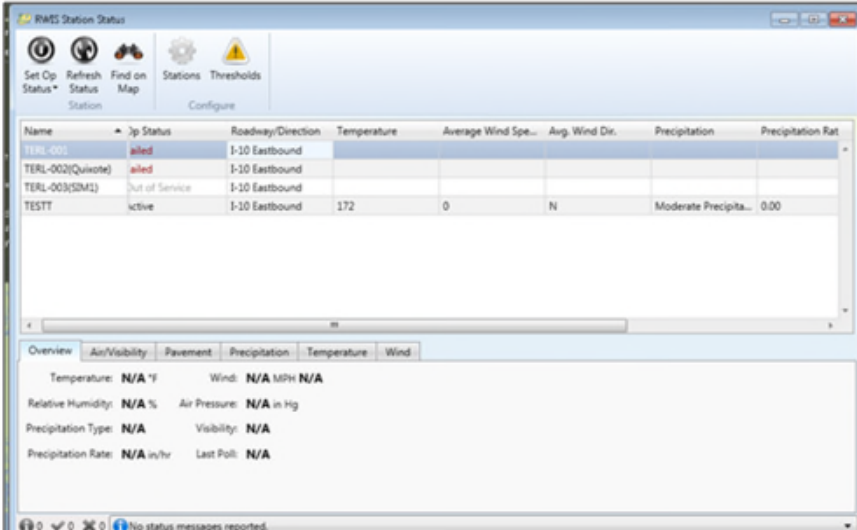
- Air Pressure
- Visibility
- Situation (clear, cloudy)

### ■ Pavement

- Temperature
- Freezing Point
- Black Ice
- Surface Treatments

### ■ Precipitation

- Precipitation Type
- Current Depth
- Accumulation Rate
- Humidity



The screenshot shows the 'RWIS Station Status' window. It features a table with columns: Name, Ip Status, Roadway/Direction, Temperature, Average Wind Spe..., Avg. Wind Dir., Precipitation, and Precipitation Rat. The table lists four stations: TERL-001 (I-10 Eastbound, Status: failed), TERL-002(Quikrete) (I-10 Eastbound, Status: failed), TERL-003(SDM1) (I-10 Eastbound, Status: Out of Service), and TESTT (I-10 Eastbound, Status: Active, Temperature: 172, Average Wind Spe: 0, Avg. Wind Dir: N, Precipitation: Moderate Precipita..., Precipitation Rat: 0.00). Below the table is an 'Overview' section with tabs for Air/Visibility, Pavement, Precipitation, Temperature, and Wind. The Air/Visibility tab is selected, showing: Temperature: N/A °F, Wind: N/A MPH N/A, Relative Humidity: N/A %, Air Pressure: N/A in Hg, Precipitation Type: N/A, Visibility: N/A, Precipitation Rate: N/A in/hr, and Last Poll: N/A. The status bar at the bottom indicates 'No status messages reported.'

Name	Ip Status	Roadway/Direction	Temperature	Average Wind Spe...	Avg. Wind Dir.	Precipitation	Precipitation Rat
TERL-001	failed	I-10 Eastbound					
TERL-002(Quikrete)	failed	I-10 Eastbound					
TERL-003(SDM1)	Out of Service	I-10 Eastbound					
TESTT	Active	I-10 Eastbound	172	0	N	Moderate Precipita...	0.00

Overview: Air/Visibility | Pavement | Precipitation | Temperature | Wind

Temperature: N/A °F    Wind: N/A MPH N/A  
Relative Humidity: N/A %    Air Pressure: N/A in Hg  
Precipitation Type: N/A    Visibility: N/A  
Precipitation Rate: N/A in/hr    Last Poll: N/A

No status messages reported.

### ■ Temperature

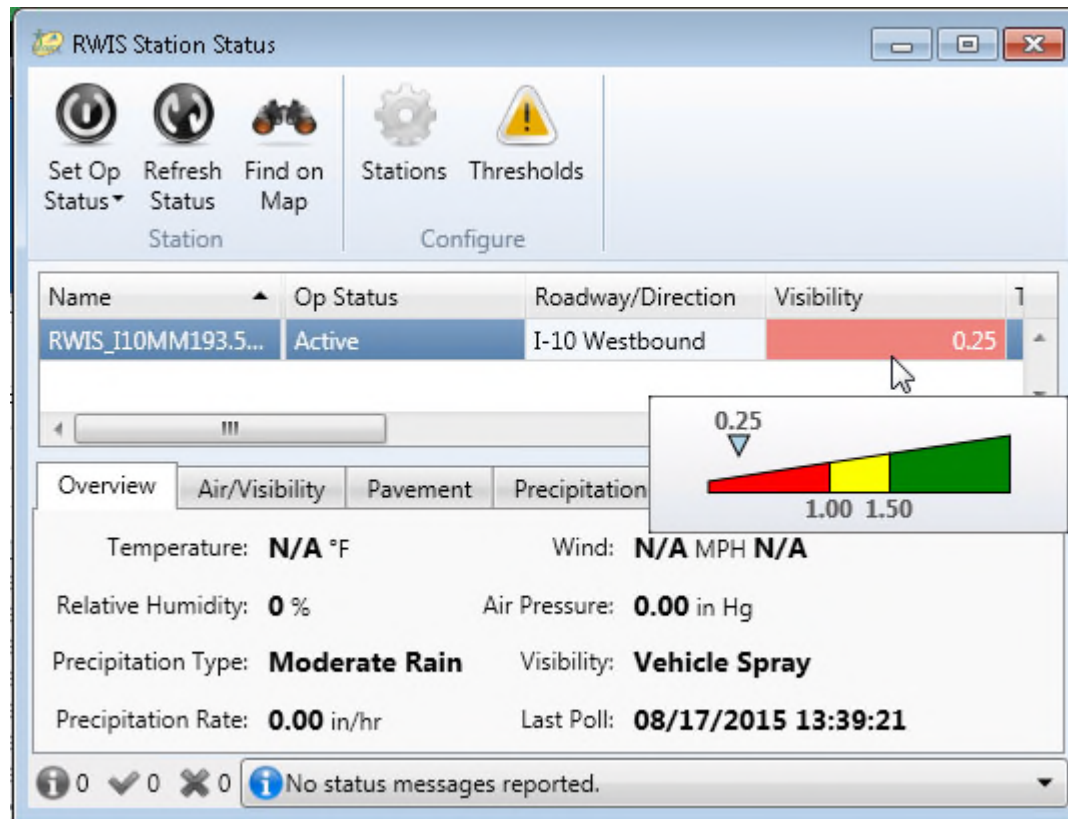
- Air temperature
- Dew point

### ■ Wind

- Average Speed / Direction
- Current Speed / Direction
- 10 Minute Gust Speed / Direction

# RWIS Data Exceeding Threshold

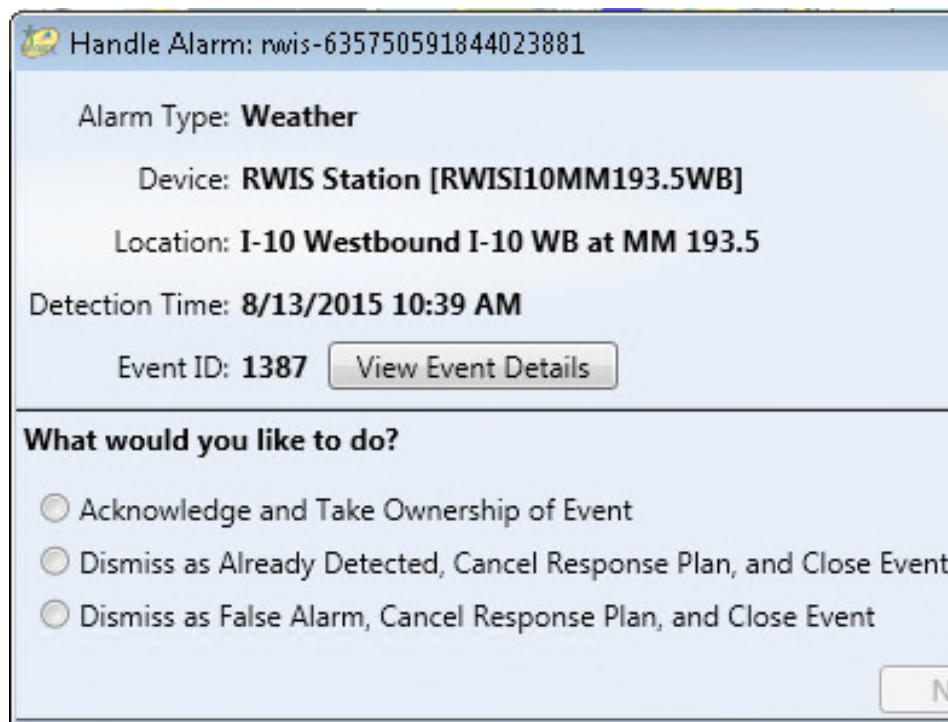
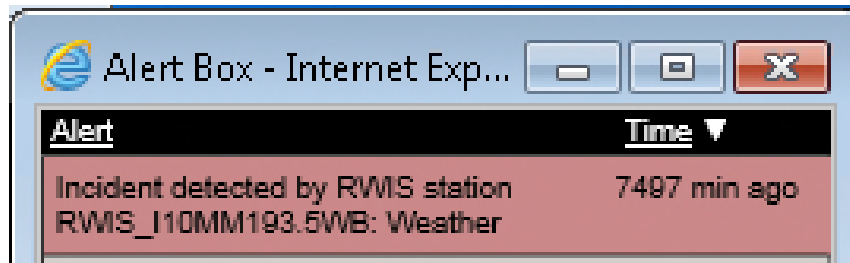
- Data exceeding a threshold generates an alarm



- Data is highlighted in the list
- Mouse hover shows the value of the alert relative to threshold



# RWIS Alert



- RWIS Alert Handling dialog when alert is clicked
  - If RWIS is configured for auto-activating a response plan,
    - operator can take ownership of the event
  - If RWIS is not configured for auto-activating a response plan
    - operator can create a new event
    - Alerts in either case can be Dismissed

# Beacon in Response Plan

- Beacons can be added to response plans

Response Plan: Event 1387

Activate Plan Terminate Plan Add Item Edit Item Remove Item Find Devices on Map Accept Load Predefined Get New Suggestions

DMS Dist: 3 HAR Dist: 10 TAM Dist: 3

Current Plan Suggestions Event: 1387 Plan: Active

Device Details	Response Plan Message Details	Currently Active Message Details
<b>Beacon</b> <b>BMS I-10 and US27</b> [District 3 - Tallahassee] Active	On Until Canceled Not Activated 255	Off 0:00:00 0
<b>Beacon</b> <b>BMS I-10 and US90 EB</b> [District 3 - Tallahassee] Failed	On Until Canceled Not Activated 255	Off

# What's New?

- Release 6.2 Major Enhancements:
  - BlueMac TCP Server
  - Stale Remote/C2C TSS links Gray on Map
  - Independent toggle for local/C2C link display
  - Suppress Redundant C2C Alerts
  - Generate TSS-like alerts for C2C Data sources
  - DMS Force Blank in Status on Failure
  - DMS GUI Force Capital Letters
  - Use FHP CAD Direction to Filter Location
  - Operator Map for IE to WPF Conversion
  - Find on Map for Alerts
  - Add comments to closed events via audit

# What's New?

- Release 6.2 Major Enhancements:
  - Ignore Spaces in EM Tag Lookup
  - Display vehicle beat on EM dialog
  - Discontinuous Lane Blockage
  - Highlight events owned by operators in the event list
  - Dismiss Upstream Redundant TSS Alerts
  - Add Year Field to Involved Vehicle and Response Plan
  - Event type templates & head & tail tags
  - Per-event type templates
  - Several Minor Enhancements and Footprint Fixes
- Release 6.2 Features List Webpage:  
<http://sunguidesoftware.com/releases/release-6-2-future>