Change Management Board Meeting

Wednesday, August 15 2012

Video Conference: CO- Burns Video Bridge 1

Audio: 850 - 410 - 5667

Welcome and Call for Quorum

Javier Rodriguez, CMB Chairman

Agenda

Time	Item	Lead
1:30 – 1:35	Welcome and Call for Quorum	Javier Rodriguez
1:35 – 1:40	Previous Meeting Recap and Action Item Review	Javier Rodriguez
1:40 – 1:50	ITS WAN update	Frank Deasy
1:50 – 2:00	SSUG Update	John Hope
2:00 – 2:20	SunGuide GUI Enhancement *(vote)*	Tucker Brown
2:20 – 2:40	SunGuide Permissions	Tucker Brown
2:40 – 3:00	HAR Enhancement	John Hope
3:00 – 3:10	Break	

Agenda

Time	Item	Lead
3:10 – 3:25	Providing data to RITIS	Arun K
3:25 – 3:45	TSS and Travel Time Modifications *(vote)*	Clay Packard
3:45 – 3:55	Add Vehicle Year to SunGuide EM *(vote)*	Tucker Brown
3:55 – 4:05	Add Arterial Turn Lanes to SunGuide EM *(vote)*	Tucker Brown
4:05 – 4:15	Find on Map for IDS Alerts *(vote)*	Tucker Brown
4:15 – 4:25	Top Priority SunGuide Item by District	Arun K
4:25 – 4:30	Action Items Review	Javier Rodriguez

CMB agenda, slides, and attachments posted here: http://www.dot.state.fl.us/trafficoperations/ITS/Projects_Deploy/CMB.shtm

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Previous Meetings Recap and Action Items Review

Javier Rodriguez

May 2012 Action Items

1. CO to propose ONVIF voting item at future CMB meeting.
2. CO to discuss device grouping for partitioning for permissions at future CMB meeting.
3. CO to propose GUI overhaul with cost / schedule at future CMB meeting.

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ITS Telecommunications Update

Randy Pierce &
Frank Deasy

ITS WAN Update

- Connecting D7
  - ITS WAN equipment being installed
  - UniCast connectivity is operational to District 7
  - MultiCast connectivity will be implemented to District 7 after the RNC
- Connecting D1
  - ITS WAN equipment being installed
  - Connectivity is pending circuit breaker delivery to regen sites
- Connecting D3 RTMCs Tallahassee
  - Tallahassee RTMC fiber connection in process

ITS WAN Update

- FTE RTMC Pompano
  - FTE switch configuration and connection to ITS WAN in process
- FHP CAD
  - Available to Districts connected to ITS WAN
- MultiCast Re-Addressing
  - Districts should re-address now to enable Statewide MultiCasting
  - VAS can then receive MultiCast video without the need for further re-addressing
- FL-ATIS & VAS
  - Replacing dedicated circuits with ITS WAN connectivity

ITS WAN Update

- ITS WAN
  - Connectivity available in Districts 2, 3 Pensacola, 4, 5 and 6
  - Connectivity established in District 7
  - Connectivity available soon in District 1
  - Connectivity in process at FTE Pompano

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SSUG Update

John Hope

SSUG Update
Major Topics

- SSUG Charter Document
- Weighted Average Based on Volume
- New SunGuide Project Website / Forums
- Adding another Tier to User Permissions
- C2C Reliability / AVL-RR Mobile Device Reconnection
- SunGuide R6.0 GUI Discussion
- ODS – TvT report/data usage

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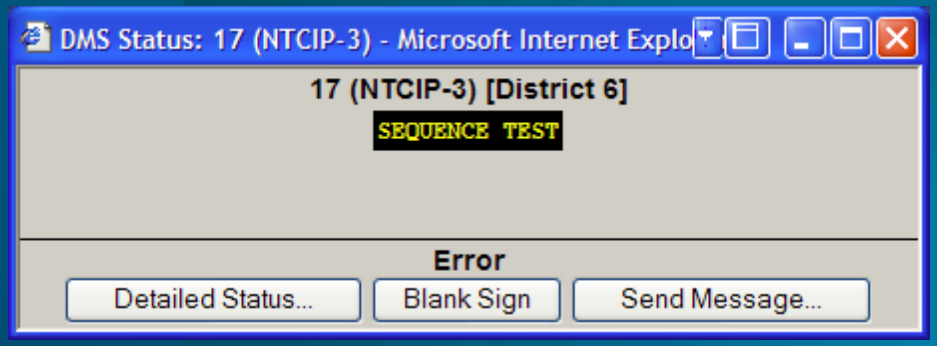
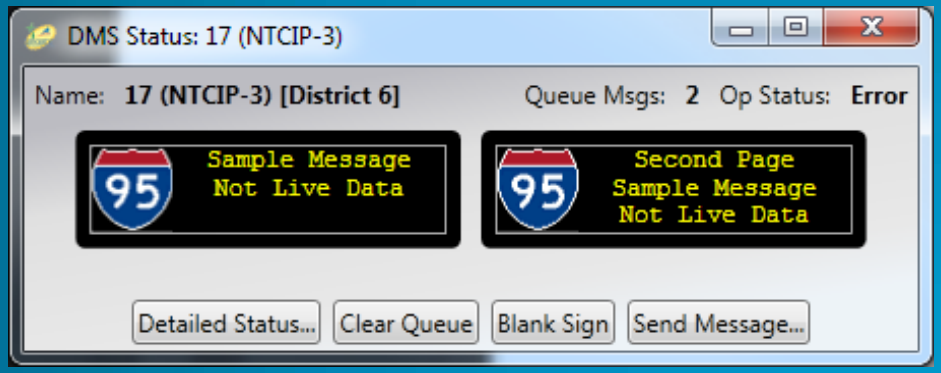
SunGuide GUI Enhancement (vote)

Tucker Brown

GUI Enhancement

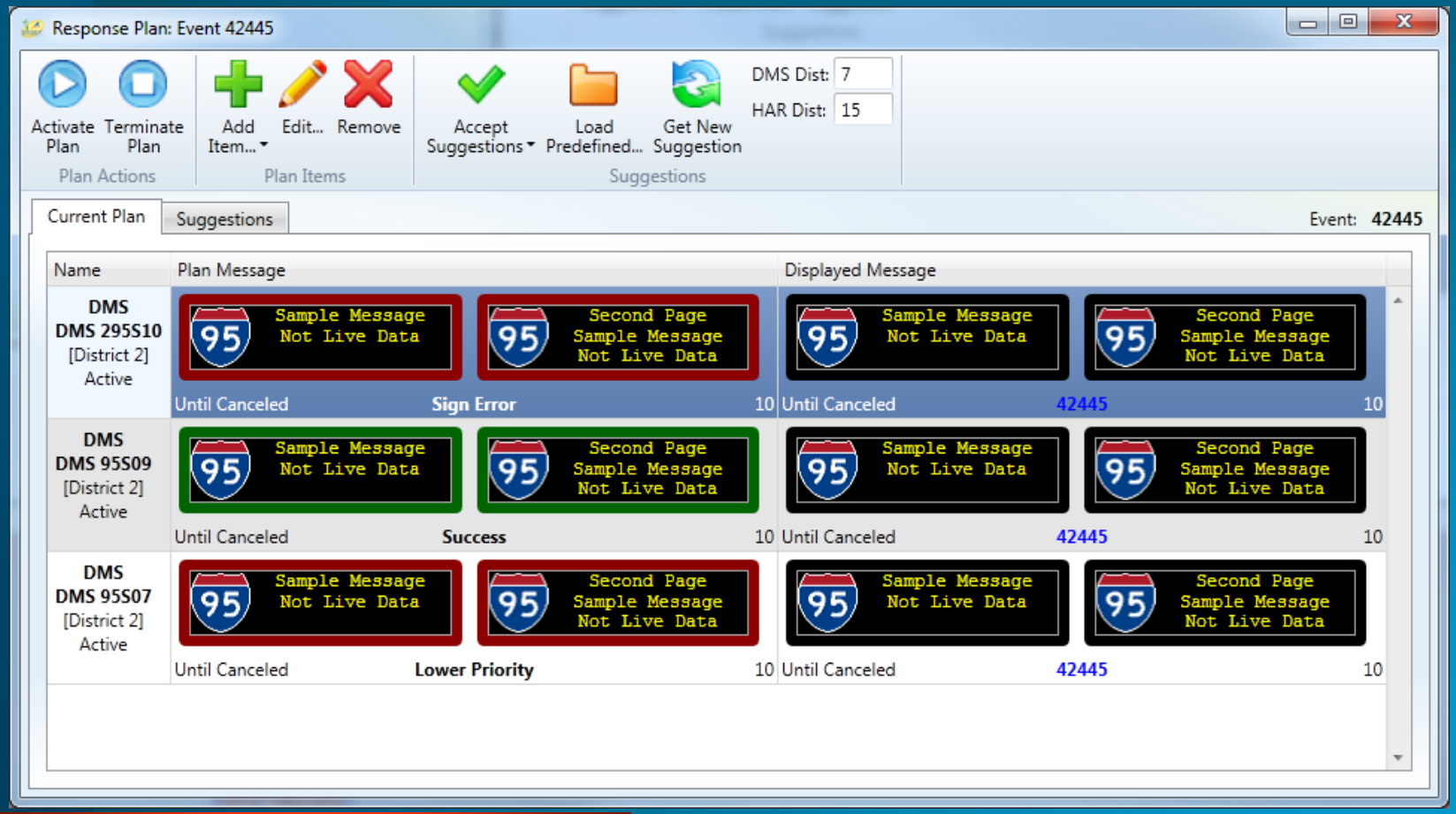
- Versions 5.0 and 5.1 introduced a conversion to WPF
  - Current dialogs use HTML and JavaScript





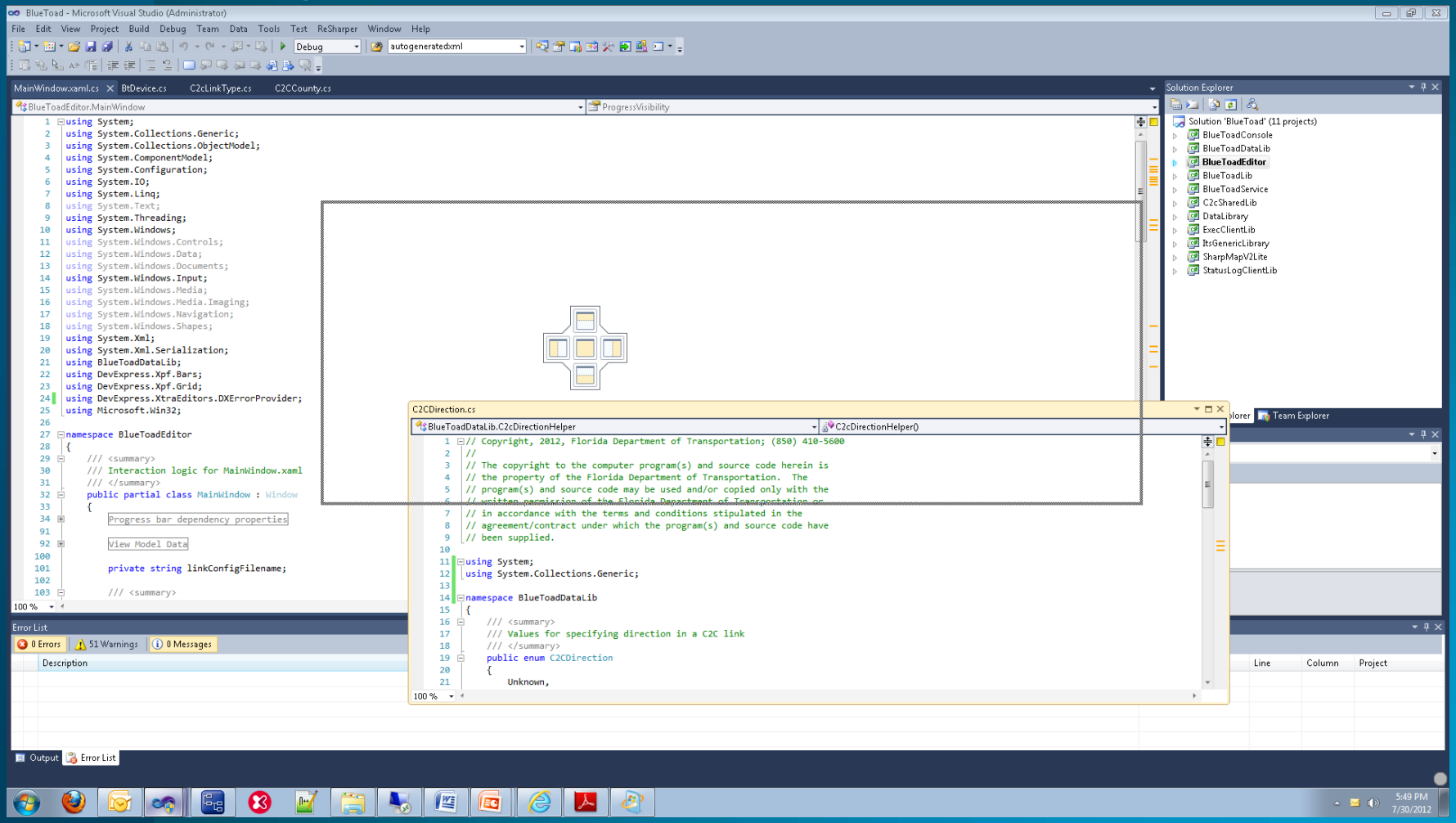
GUI – New Concepts

- Ribbons (where appropriate)
- Context Menus



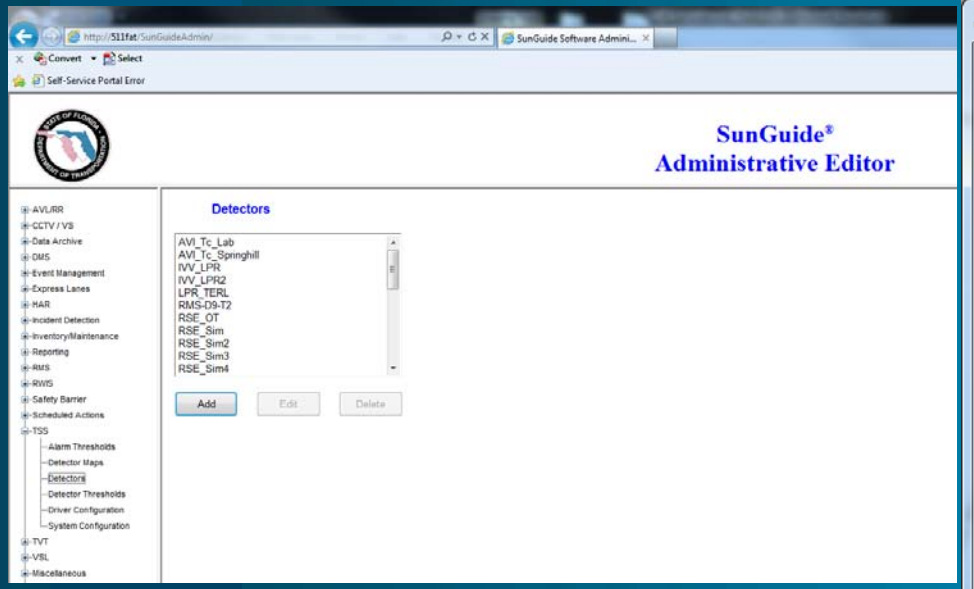
GUI – New Concepts

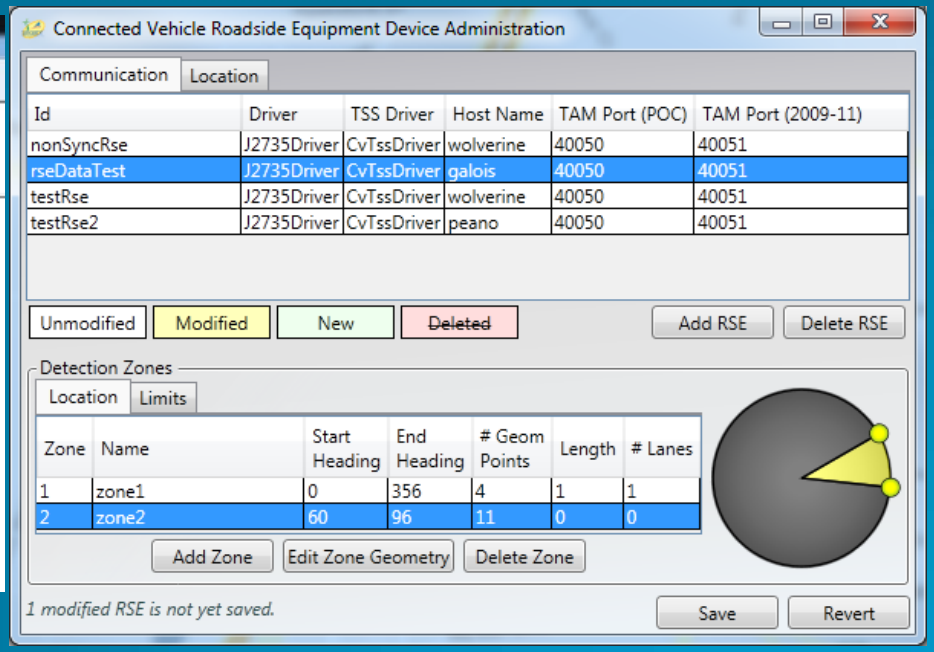
- Docking, Tabs based on User Preferences



GUI Enhancement - Admin

- Move all Admin Editor functionality to the map
  - User level permissions for Admin functions
  - Multiple users
  - Multi-edit and Save





GUI Enhancement

- Removes the dependencies on Internet Explorer
  - More control on dialog focus
  - More control of dialog refreshes
- Maintains current features
  - Automatic Updating (checked on startup)
  - Browser based installation (no media required)
- Opportunity to redesign or consolidate dialogs
  - Ex) 6.0 will have a combined MAS/DMS dialogs
- Multiple Design Reviews for District input
  - ~180 dialogs

- Estimate: 425k

GUI Enhancement

Vote

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User Permissions

Tucker Brown

TxDOT Model - SAA

- Software Administration Application
- Subsystems use SAA to:
  - Validate username/password
  - Retrieve users permissions
- Device level permissions
  - Set of user permissions apply to a single set of devices
  - Does not support multiple sets of permissions for a single device type
    - Ex) Can not have read permission on all DMS and write permission on a select group of DMSs

Implementation Option 1

- Single permission for read only permission for a device type
- Rest of permissions set would apply to a single set of devices
  - Ex) An operator could see status on all DMS but only modify the message on a particular set of signs
- Write permission would imply a read permission
  - C2C usage for remote operator restriction
- Estimate: 125k

Implementation Option 2

- Multiple permission sets per user
  - Can apply a custom set of permissions for an operator to a particular device or group of devices
- Pros:
  - Best level of control over operator permissions
- Cons:
  - Very complex implementation
  - Complex Administrative task
- Estimate: 250k

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HAR Enhancements

John Hope

HAR Proposed Enhancements

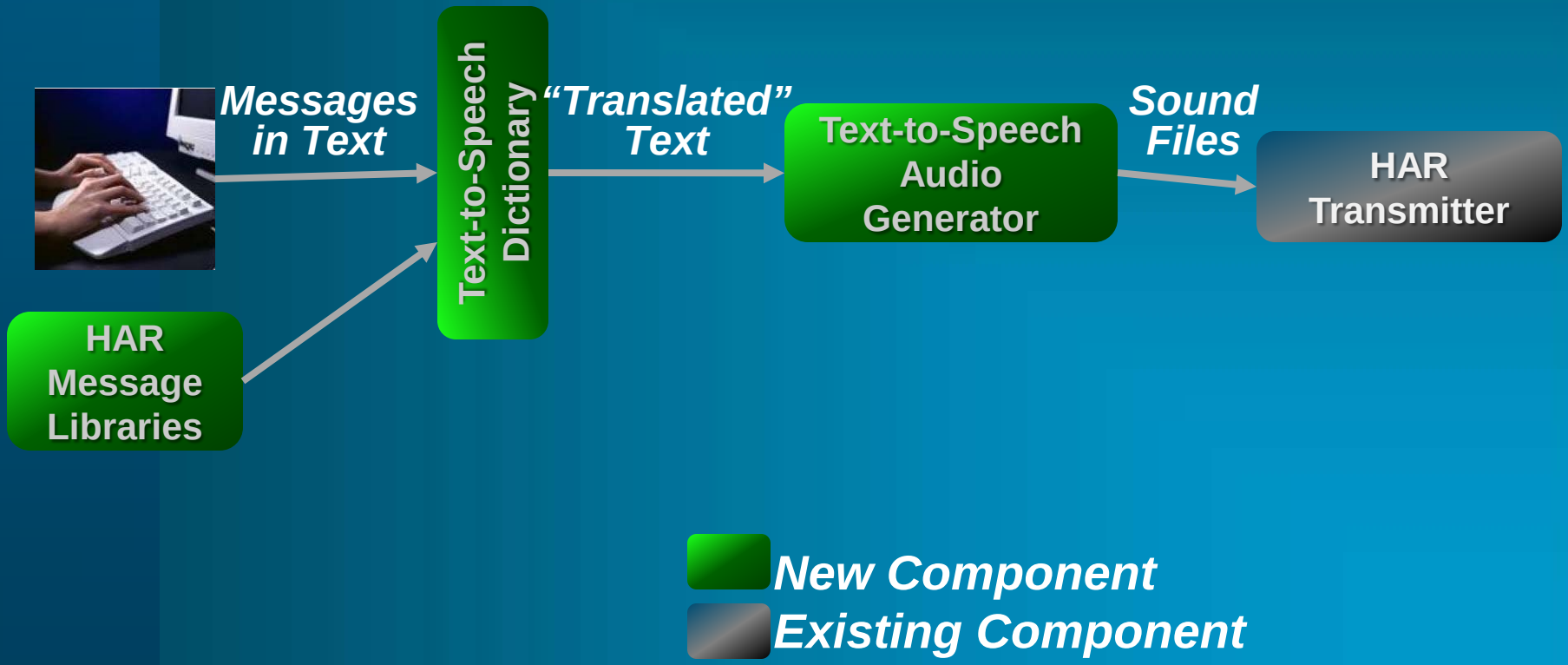
- **Direct Connection with the HAR Transmitters/Beacons**

Current Data Path

Proposed Data Path

HAR Proposed Enhancements

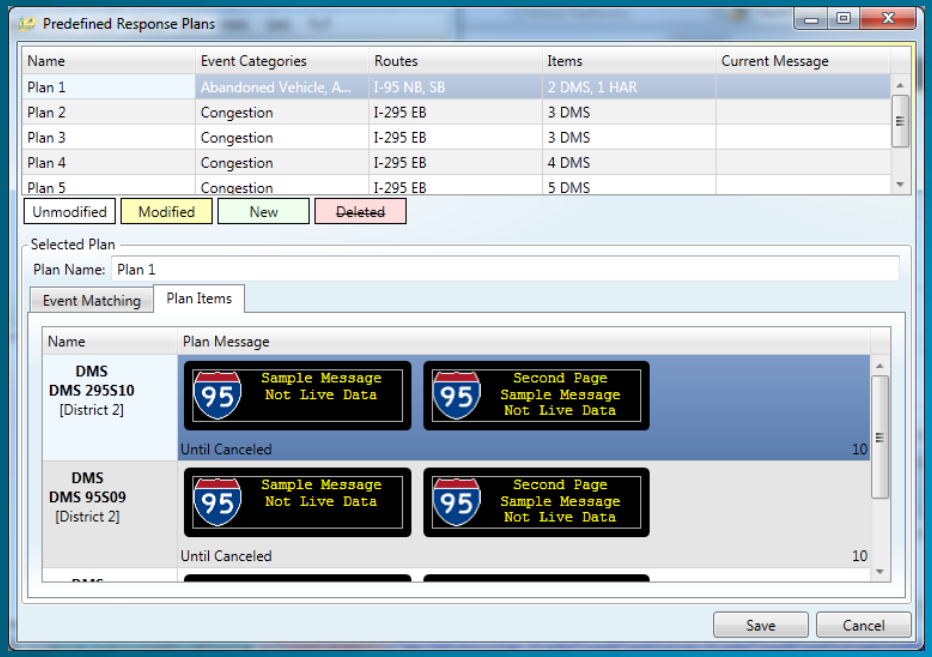
- HAR Message Libraries
- HAR Text-to-Speech Dictionary
- Text-To-Speech Audio File Generator



HAR Proposed Enhancements

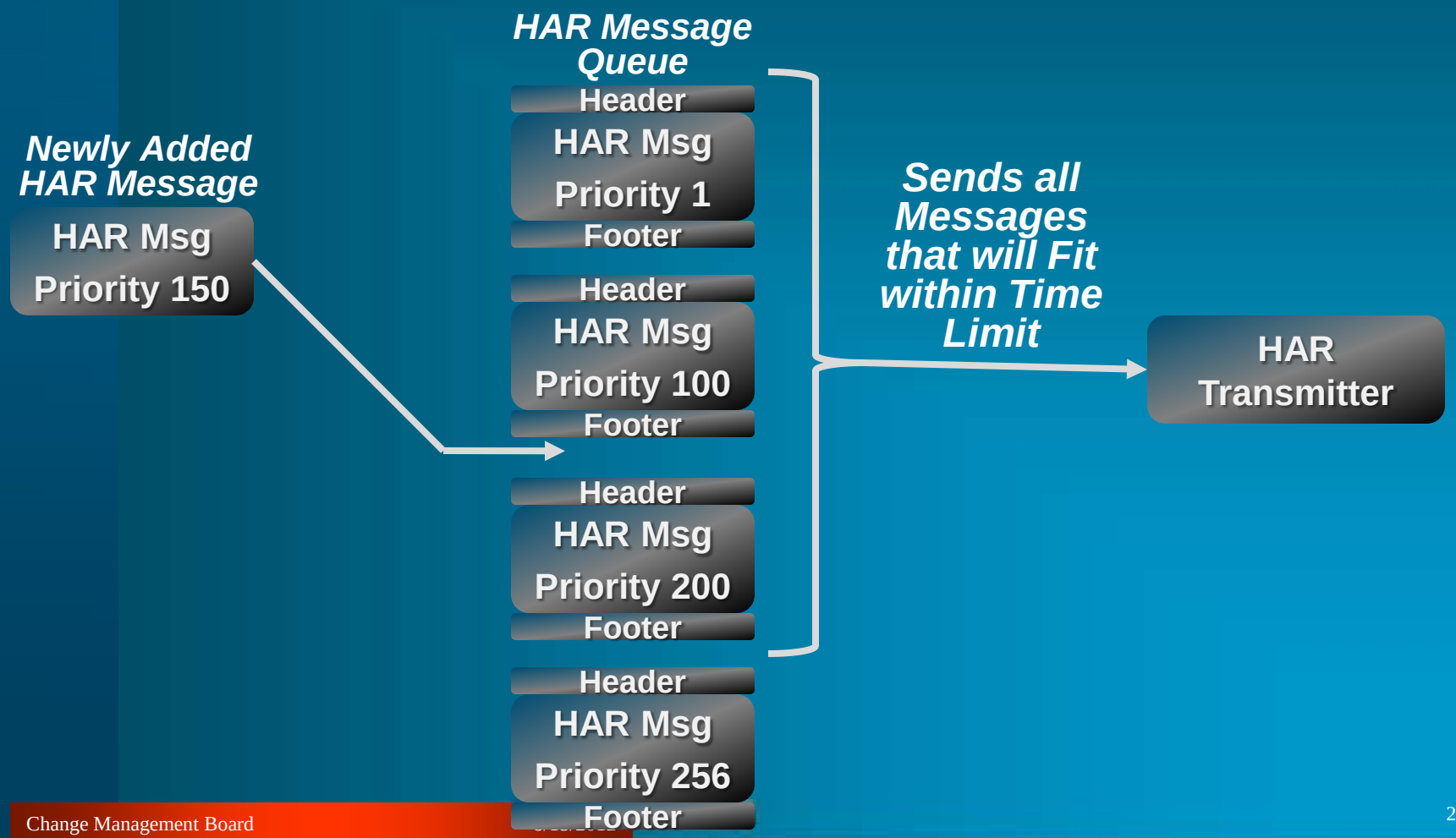
- WPF Operator Map Control and Monitoring
- WPF Operator Map Configuration

Similar to New DMS Windows



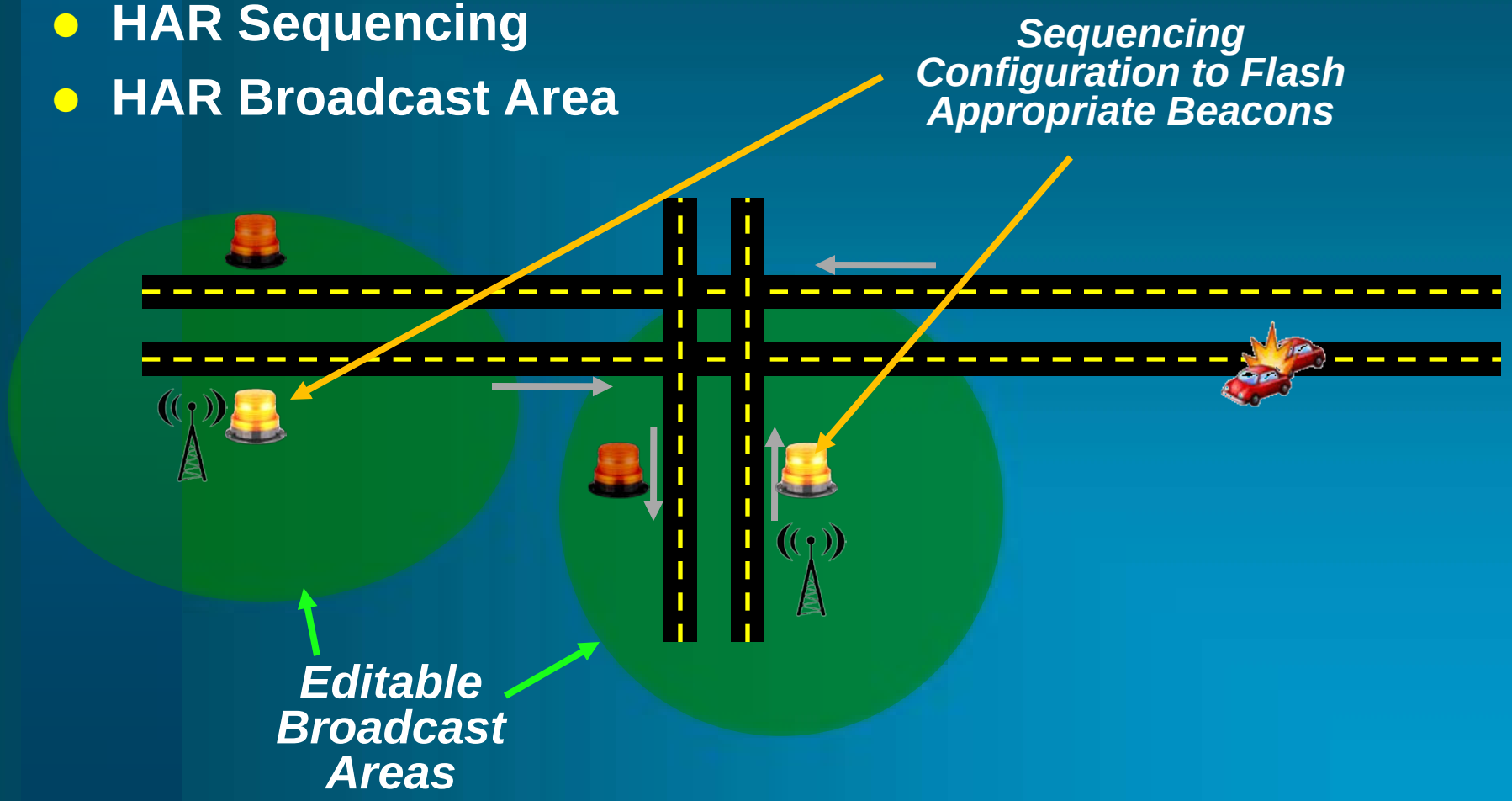
HAR Proposed Enhancements

- HAR Message Management



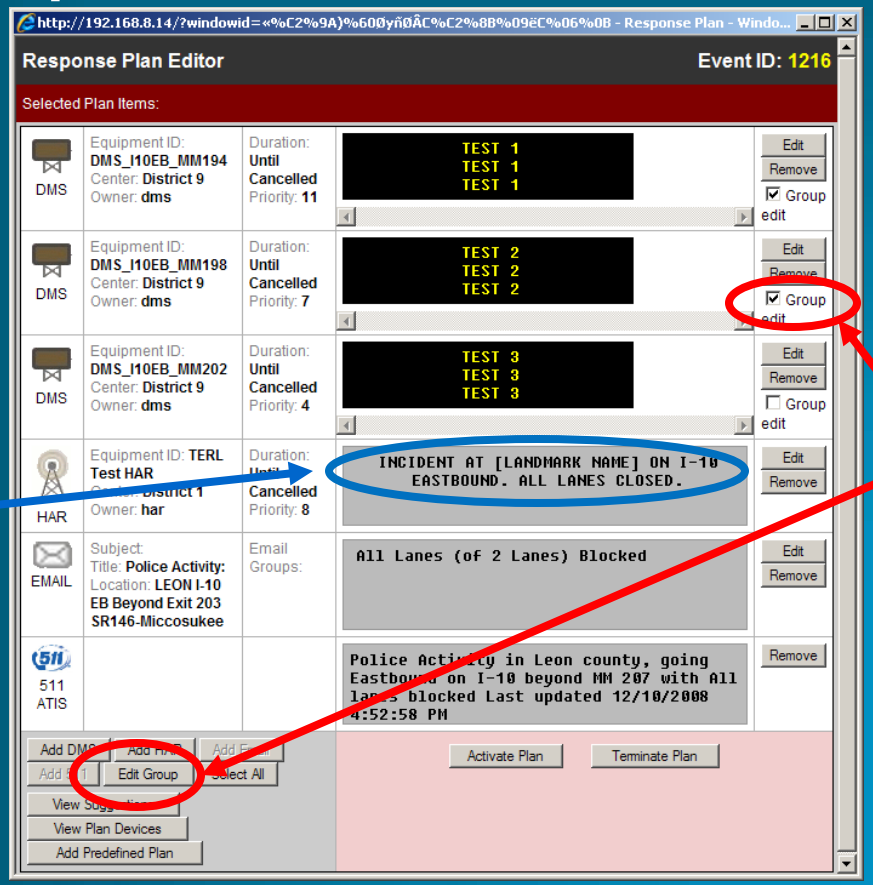
HAR Proposed Enhancements

- HAR Sequencing
- HAR Broadcast Area



HAR Proposed Enhancements

- Expanded HAR RPG Message Template
- HAR RPG Multiple Edit



Include as much detail as reported in the SAE Description

Expand "Edit Group" to include HAR

HAR Enhancements Summary of Benefits

- Easier system configuration (bypassing proprietary proxy driver)
- Vendor software not needed for standard operations
- Expanded HAR capabilities and features to better meet operational needs

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10 Minute Break

Everyone

Change Management Board

Providing data to RITIS

Arun Krishnamurthy

Providing Data to RITIS

- RITIS, product of University of Maryland, will be FDOT's new Central Data Warehouse.
- RITIS will be available to use by end of Sept, 2012.
- RITIS will obtain data from FDOT using SunGuide software via:
  - Center-to-Center
  - Nightly FTP data transmission

Providing data via Center-to-Center

- TERL will set-up C2C infrastructure.
- All districts send data to TERL
- TERL sends data to UMD / RITIS
- TMCs on ITS WAN will send data through the ITS network. Others via internet.

- Action Item:
  - CO will coordinate to configure connection with each TMC.
  - Schedule ?

Providing data using FTP

- SwRI is modifying the Data Archive in SunGuide.
- Once TMCs deploy this new release, SunGuide can be configured to send traffic and incident data to UMD FTP site.

- Action item:
  - Release 5.1.1 will be available mid Sept.
  - We recommend districts to deploy as soon as possible so RITIS can be populated with their information.

Loading Archived Data

- Loaded archived traffic data from STEWARD
- If district desires additional data be added, please let me know

District #	Traffic Data Availability Dates
District 1	07/01/2011 - 07/02/2012
District 2	2008, 01/01/2009 - 07/07/2009, 2010, 2011, 01/01/2012 - 07/02/2012
District 3	05/01/2011 - 05/10/2011, 06/01/2011 - 07/02/2012
District 4	2010, 2011, 01/01/2012 - 07/02/2012
District 5	03/2008 - 09/2008, 04/2009 - 12/2009, 2010, 01/2011, 03/2011 - 12/2011, 01/01/2012 - 07/02/2012
District 6	2008 (partial), 2009, 2010, 2011, 01/01/2012 - 07/02/2012
District 7	2009-2010 (partial), 2011, 01/01/2012 - 07/02/2012
Turnpike	No data

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TSS and Travel Time Modifications (vote)

Clay Packard

Background

- TxDOT enhanced TSS and Travel Times
  - Additional device support
  - Support wrong-way alerts
  - Consistently interpret no-traffic conditions
  - Allow travel time messages with no time units example: “15” instead of “15 MINS”
- FDOT users desire additional related enhancement
  - Reduce and suppress excessive TSS Alarms

Additional Device Support

- Added device support to TSS in 6.0
- Added EIS G4 support w/ classification
- Added Wavetronix HD support w/ classification
- Added TTI's AWAM Bluetooth to Probe Fusion Driver (more expensive than specifically removing)

Wrong Way Reporting

- Wavetronix HD device detects wrong way drivers
  - Device firmware update required ???
- Device sends negative speed when a vehicle is detected going wrong way.
- Negative speed is reported throughout SunGuide
- Wrong Way Alerts are raised to the operator

No Traffic Conditions

- Some devices report no traffic as -1
- Negative values are used by wrong way scenario
- SunGuide will not report no traffic values
  - Speed value will be optional
  - No traffic will report without speeds
    - Speed will be excluded
    - Volume = 0
    - Occupancy = 0

Travel Times without Units

- TVT appends calculations with configured units

  <distUnits>MI</distUnits>

  <spdUnits>MPH</spdUnits>

  <minUnits>MIN</minUnits>

- TVT uses default values if not configured

```
TRAVEL TIME
TO I-95 15-18 MIN
```

- Omit units from TVT message if NONE is used
- Potential Use for template-specific units that differ:

```
TVT (MIN)
I-95: 15-18
I-4: 23-26
```

```
TRAVEL TIME
I-95: 15-18 MINUTES
TURNPIKE: 23-26 MINS
```

Volume Weighted Averaging

- Many users reported excessive TSS Alarms
  - Overnight, no/low traffic, seems to be false alarm
- Alarms triggered by rolling lane speed averages
  - = Average speed over several poll cycles
  - @ speeds exceeding alarm thresholds
- Large impact from low volume or no traffic
  - Rolling average is brought down
  - Operational Data is impacted
    - TSS Alarms
    - TVT, VSL, FL-ATIS
    - Un-representative data is archived

Volume Weighted Averaging

- Volume weighted average addresses low volume
- Current method:

  SUM(speeds) / Count(speeds)

  = 0 + 0 + 20 + 76 + 75 / 5
- Volume Weighted average:

  SUM(speeds X their volume)

  / SUM(volumes included)

  = (0*0 + 0*0 + 20*1 + 76*3 + 75*7)

  / SUM(0+0+1+3+7)

Volume Threshold for Alarms

- Remaining TSS Alerts were analyzed
- Another Alarm producing scenario was identified:
  - Extremely Low Volume
- Added a Volume Threshold
  - If volume < 3, do not trigger TSS Alarm condition

Vol. Weighted Avg. - Analysis

- Real data was processed with calculation
- Alarm generation was simulated
  - District 5 configuration values
  - 1 week of District 5 TSS data

Parameter	Value
Poll Cycle Interval	20
Number of Poll Cycles per Rolling Average	6
Volume Threshold	3
Speed Threshold	35
Speed Recovery	55
Occupancy Threshold	10
Occupancy Recovery	5

Vol. Weighted Avg. - Analysis

Link Name	Control	VW only	VW plus VF
I-4 Just W of Saxon	518	171	6
I95-I4	493	288	15
SR 528 @ I-95	491	344	4
I-4 West of 417	425	82	3
SR 528 E of Friday Rd	408	402	5
SR 528 @ Friday Rd	402	386	12
I-4 West of SR 436	399	30	8
SR 528 W of I-95	391	225	7
SR 528 @ Satellite Blvd	384	295	6
I-95 NB @ MM 248.9	378	243	11
Top 10 D5 links	***4289***	***2466***	***77***
Total D5 (all 326 links)	***20,706***	***11,925***	***2,030***

Impacts

- Impacts
  - Link averaging by TSS – not by TSS clients
  - C2C Plug-ins (ex. FL-ATIS) and Data Archive consumers must support missing/null speed value
  - TSS Report templates will need to be updated
  - GUI: interpreting and displaying no traffic conditions?

Benefits

- Benefits
  - Additional choice/competition of TSS devices
  - Removed significant TSS data quality defect resulting from low volume or no traffic
  - Reduced false-alert handling burden on operators
  - Wrong way notification (critical/severe event)
  - More consistent/efficient data processing

Discussion

- Questions for Users:
  - How should GUI handle no traffic?

- Questions from Users…?

TSS and Travel Time Mods.

Vote

Change Management Board

Add “Vehicle Year” to Involved Vehicles (FP 2223) (vote)

Tucker Brown

Vehicle Year

- Available to set in the event
- Use in template for Response Plans

Color	Make	Model	Tag	State	Match	
Brown	ACURA	MDX	TAG123	FL		Modify Delete
N/A	N/A	N/A		N/A		Add

- Estimate: 5 days
- Release: 6.0

Vehicle Year

Vote

Change Management Board

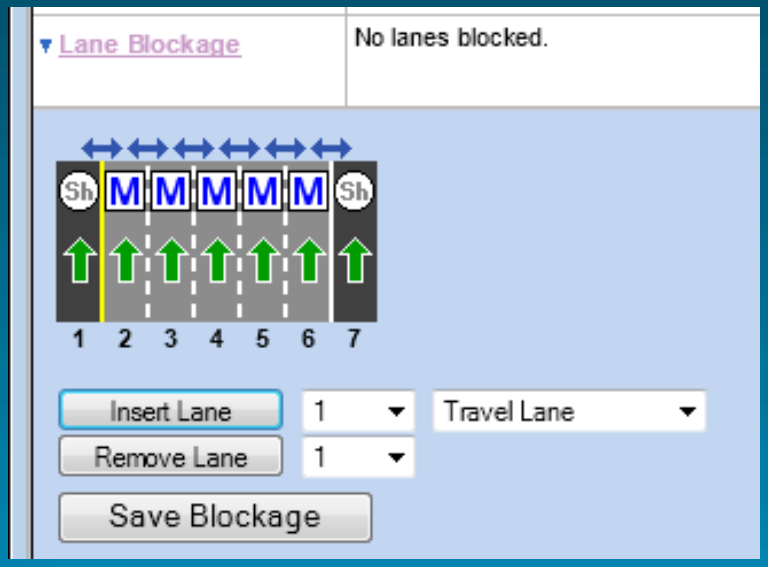
Add turn lanes to available lane configuration

(FP 722) (vote)

Tucker Brown

Turn Lane

- GUI
- SAE Codes
- Admin Editor
- Database
  - Views, Table, Models
- Blockage Descriptions
- Performance Measures
- ATIS and Event Severity
- Event Blockage Description in FLATIS
- Response Plan



- Estimate: 2-4 weeks
- Release: 6.1

Turn Lane

Vote

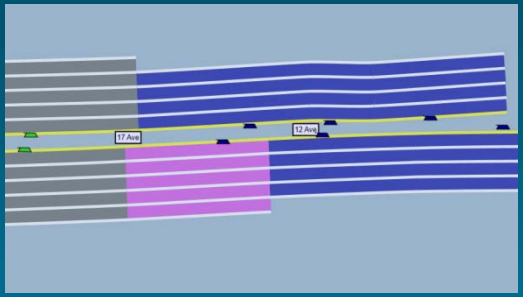
Change Management Board

Find on Map for IDS alerts (FP 1715) (vote)

Tucker Brown

Find on Map

- 5 Types
  - External (lat, lon)
  - TSS (link/lane based)
  - VisioPad (device based)
  - FHP (lat/lon)
  - Weather (area based, no lat/lon)



- Highlight the nearest EM location, device, or link

- Estimate: 3 days
- Release: 6.0

Find on Map

Vote

Top Priority SunGuide Item by District

Arun Krishnamurthy

Last Meeting Recap

District #	Issue	Update
District 1	Floodgate / text to speech	Being investigated
District 2	BlueTOAD in SunGuide	Available in R5.1.1 (Courtesy District 4)
District 4	SunGuide Permissions	Discussed in CMB today
District 6	SunGuide website / hotfix list	Done
Turnpike	Miles ahead on DMS	Done

Comments

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Action Items Review

Javier Rodriguez