Change Management Board Meeting

Bridgeline # 850-414-4976

Welcome and Introductions

Steve Corbin, CMB Chairman

Change Management Board

Time	Item		Lead	Supporting Materials
9:45 – 9:50	Welcome and Introductions		Corbin	
9:50 – 10:05	Previous Meeting Recap and Action Item Review		Corbin	December 1, 2006 Meeting Minutes
10:05 – 10:20	SunGuide℠ Footprints Issues Review		Dellenback	CMB .ppt
10:20 – 10:50	SunGuide℠ Software Release 2.2.2	CCTV Preset Scheduling Enhancement	Dellenback	CMB .ppt, White Paper, Requirements, Responses to Comments on Design
		GUI Performance Enhancement		
10:50 – 11:50	SunGuide℠ Software Release 3.0	AVL Subsystem – 1 new / 6 changed Req's *(Vote)*	Bonds	Release 2.2.1 Documents; Release 3.0 Requirements Specification, Ballots
		EM Subsystem *(Vote)*		
		PM (Reporting) Requirements *(Vote)*		
		Road Ranger Requirements *(Vote)*		
		Video Incident Detection Requirements *(Vote)*		
		SunGuide℠ Event Viewer Subsystem *(Vote)*		
		AMBER Alert DMS Message Template – 2 new Req's *(Vote)*		

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Time	Item		Lead	Supporting Materials
11:50 – 12:20	SunGuide℠ Software Release 3.1	Travel Time Enhancements	Dellenback	Using SunGuide℠ Travel Times White Paper
		Tallahassee LPR and iFlorida Enhancements	Tillander	
12:20 – 12:30	Closing and Action Item Review		Corbin	

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Previous Meeting Recap and Action Item Review

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- SunGuide users are to provide Trey Tillander with their comments on the *SunGuide Support Definition Response Times* document so that the mean time for software repairs can be tracked for the purposes of documenting response times.
- For the FY 2008 SunGuide support maintenance scope and cost, Trey will work with SwRI to find ways of reducing the cost of trips to Florida for onsite support.
- Trey will distribute SunGuide support and maintenance cost information to the CMB members so they can decide if the response level is what everyone wants.
- Trey will contact Maj. Williams of the Florida Highway Patrol (FHP) regarding the cost of Microsoft MapPoint software.
- The CMB members will provide comments on the mapping approaches white paper by December 8. Steve Corbin will send everyone an email survey on this.
- The CMB will schedule the SunGuide mapping proposal discussion in conjunction with the 511 workshop in January 2007.
- Southwest Research Institute will provide a prototype map for the January workshop.

Change Management Board

- The CMB members will provide review comments on SunGuide Release 3.x by December 20, 2006.
- Language stating that the EM/PM module in Release 3.x will be fully compatible with SunGuide Release 2.2 will be added to the engineering change order for the project.
- The CMB members are to provide comments on the CCTV camera preset scheduling function as outlined in the presentation slides by SwRI by December 8, 2006.
- Southwest Research Institute will look into the CCTV preset scheduling sequencing feature, based on a 24-hour clock.
- Southwest Research Institute will research what happens when an operator manually schedules a device that already has a sequence and they conflict. Which operation would take priority?
- Southwest Research Institute will provide answers to the CMB for the following questions:
  - Will the AVL system interface directly with the database for the purpose of creating reports or will it be databus centric?
  - Will the EM/PM GUI in Release 3.x communicate with SunGuide via the databus or the database?

Change Management Board

SunGuide℠ Software Footprints Issues Review

Steve Dellenback

Footprints Issues Status

	New	Open	Closed	Public Solution	Total
Jan 9, 07	11	15	89	1	105
Dec 1, 06		14	79	1	94

All Open Issues

Issue #	Last Edit	Status	Title
113	1/9/07	Request	Issues with Restarting Status Logger
111	1/4/07	SwRI Reviewing	Map fails to load when large number IM events (100+)
110	1/9/07	More Information	MAS subsystem locks up
108	1/9/07	More Information	Changing TSS polling creates issues
107	1/8/07	More Information	MCP / Joystick issue
102	12/11/06	SwRI Reviewing	Allow 'failed' devices to still periodically poll
101	12/12/06	More Information	Detectors reporting 0-0-0 for both no vehicles (empty roadway), and stopped vehicles (congestion)
97	12/18/06	SwRI Reviewing	Preferences lost
96	11/16/06	SwRI Addressing	Re-Open Issue described in #90 (Problem Removing Signs from an Active Response Plan **)**
89	11/27/06	More Information	MAS Queue Window shows "PENDING" when it should say “COMPLETED”
86	10/27/06	SwRI Addressing	Oracle 10.2 Compatibility Fixes
65	11/27/06	SwRI Reviewing	CCTV GUI not correctly showing status of camera lock
62	8/25/06	SwRI Reviewing	System startup time too slow
51	11/27/06	Needs Approval	TVT messages with multiple destinations but missing data
49	6/6/06	Issue Submitted	Provide the ability to 'override' predefined response plans

Change Management Board

SunGuide℠ Software Release 2.2.2
CCTV Preset Scheduling Enhancement
GUI Performance Enhancement

Steve Dellenback

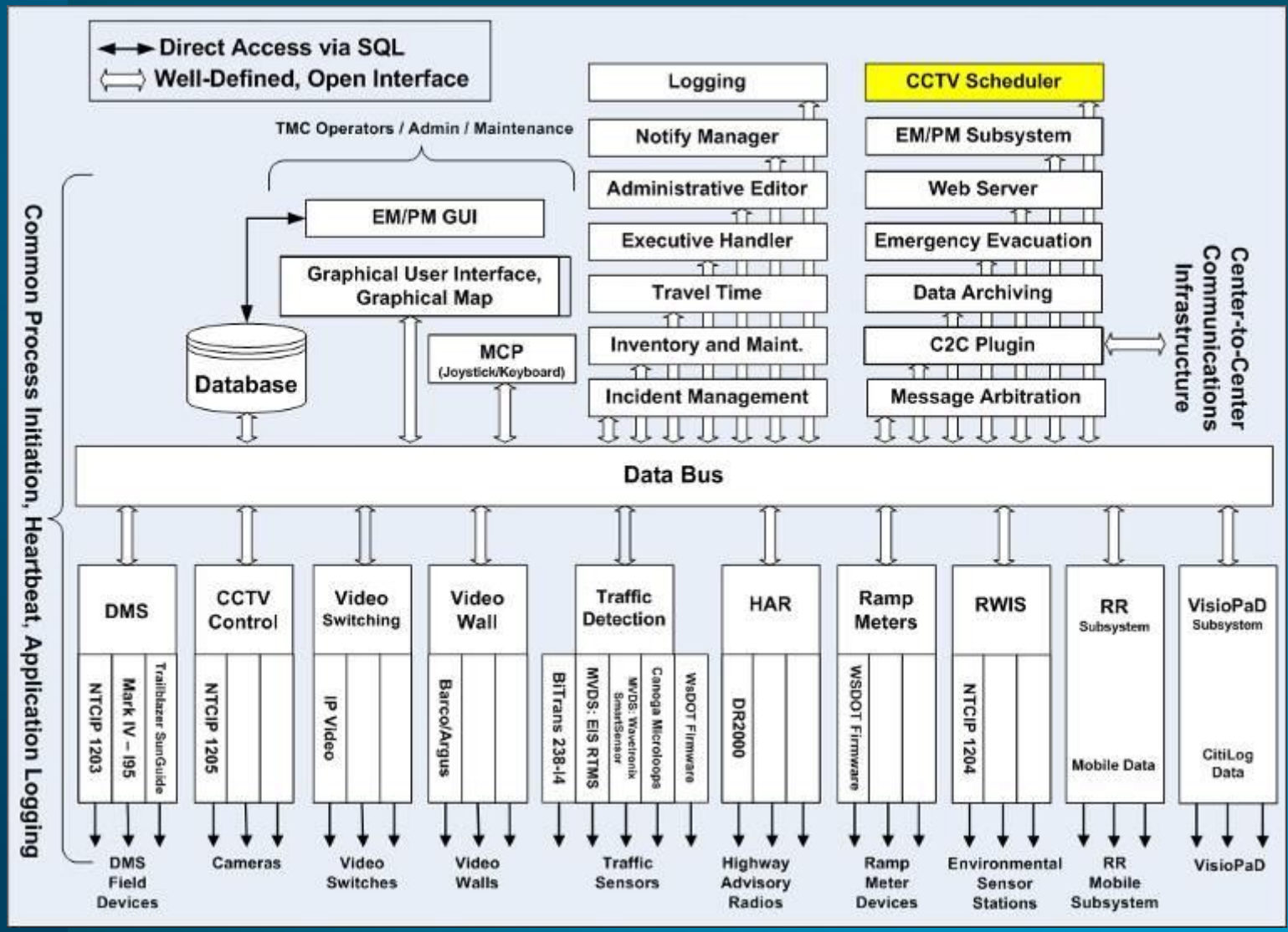
- **Discussion topics:**
  - **CCTV Scheduler enhancement:**
    - **Allow CCTV commands to be "programmed:**
    - **Being implemented as a subsystem**
  - **GUI performance enhancement:**
    - **Very minor look and feel changes**
    - **Modifying how XML messages are processed by the GUI**

Purpose of CCTV Scheduler

- Provide a mechanism to “schedule” CCTV “preset” operations

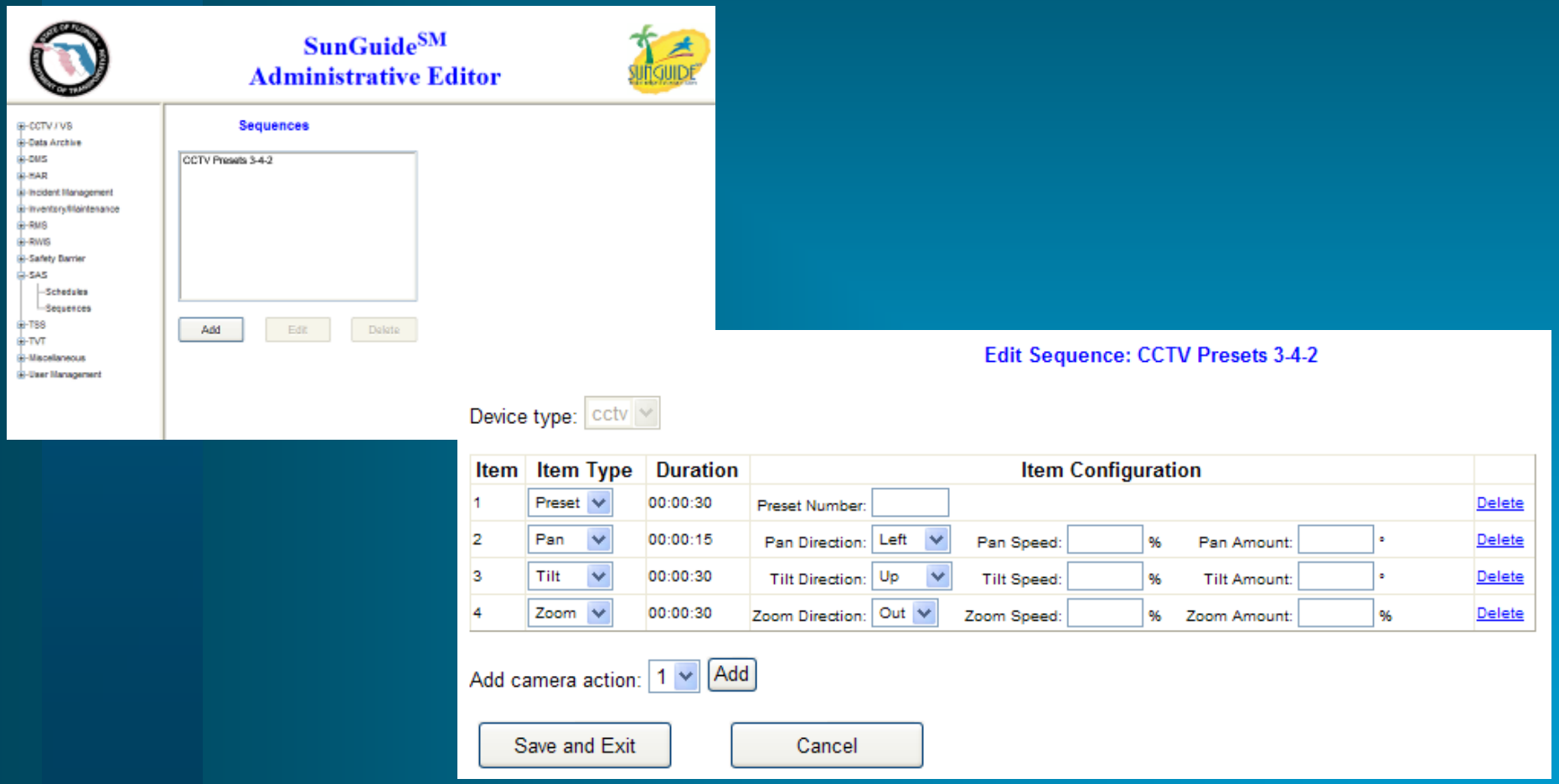
- Example usage include:
  - System-wide Presets
    - Allow one or more cameras to be moved to predefined presets
    - Accessible as a “perform now” type of action or could be scheduled to occur at certain times of day
  - Preset Homing
    - Allow one or more cameras to be periodically returned to a preset position
  - Preset Tours
    - A feature to cycle cameras between various presets

CCTV Scheduler: Integrating with SunGuide℠



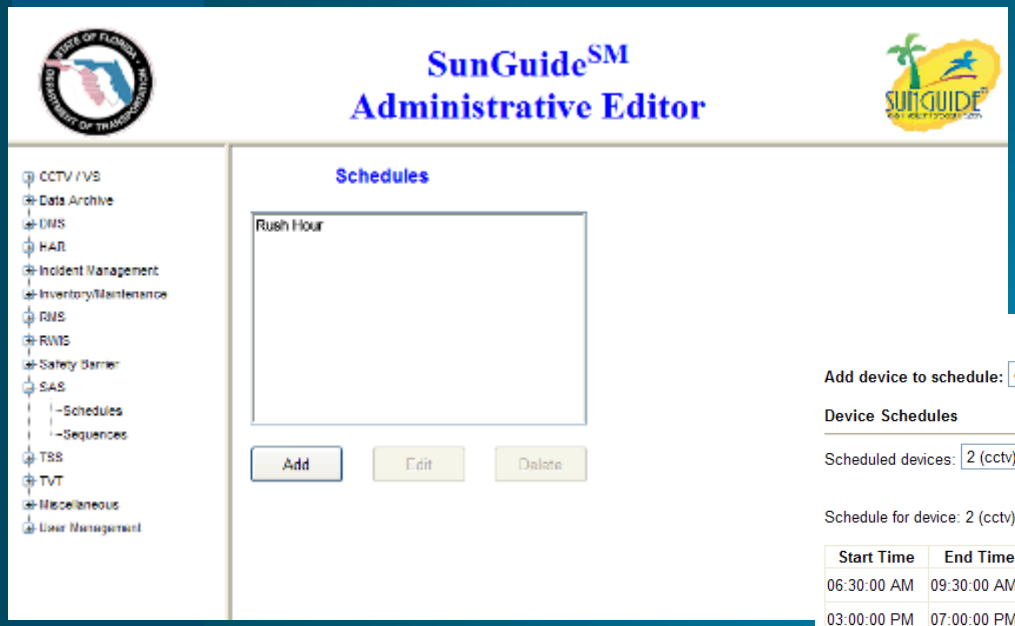
CCTV Scheduler: Admin Editor Screen Concepts

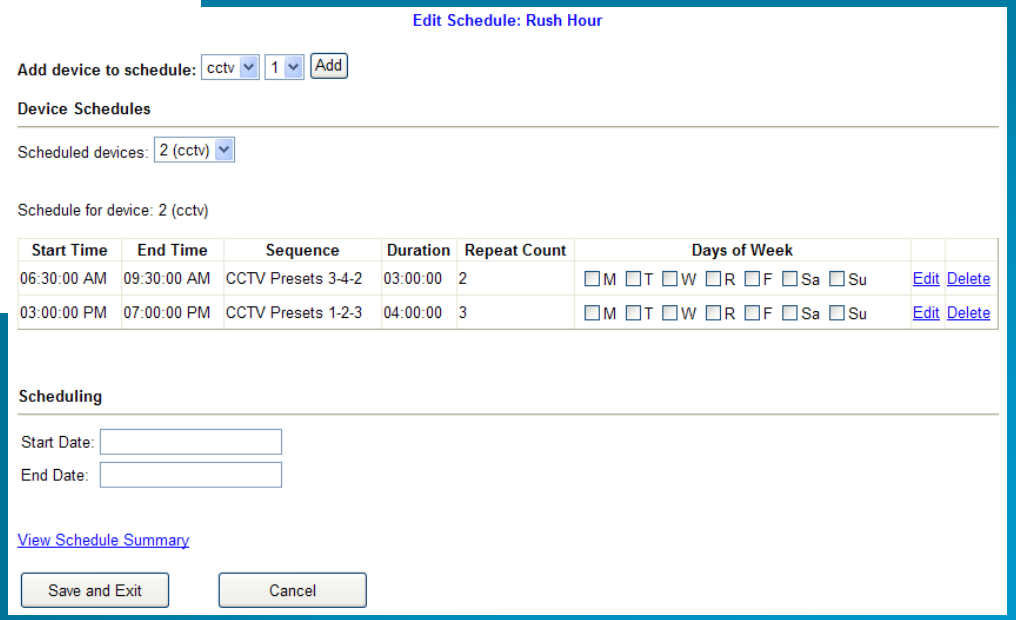
- Create a sequence of commands for a CCTV



CCTV Scheduler: Admin Editor Screen Concepts

- Create a schedule (of sequences) for a CCTV





CCTV Scheduler Design Review Comments

- Comment numbers "skipped" were comments that required no response from SwRI

3		Dec 1, 2006	Requirement TV004 says the system should provide the capability for an operator to define and schedule a sequence, but the slides depict the configuration in the Admin Editor. Since operators are not granted any access to the Admin Editor, this requirement would not be satisfied. Should the operator be able to define sequences (in which case the functionality should be in the SunGuideSM GUI) or should the requirement be changed so that the administrator is given the ability to define sequences and schedules?	D4	SwRI expects that configuring schedules is an activity that would be more appropriate for administrators than operators. If FDOT agrees with this, the wording of the requirement should be changed. However, if FDOT wants operators to have access to the functionality, SwRI will update its design accordingly (we have adequate funds to implement this capability in the Admin editor and the GUI).
4		Dec 1, 2006	The "Device Schedules" operator GUI only depicts the time frame for the schedule. It would be useful if it displayed the cameras affected and the sequence details, otherwise the operator is not provided sufficient information to select the correct option.	D4	The sample screenshots were simply conceptual mockups designed to provide a general feel for where and how things would happen. More details about schedules can be included in the implemented version.
5		Dec 1, 2006	The "Manual Device Sequencing" screenshot depicts applying a particular sequence with a particular camera, but it does not provide details about the sequence or what the currently scheduled sequences are for the camera.	D4	More details about the selected schedule can be added to this screen. However, viewing details about all schedules a device is involved in is not currently a requirement – this would need to be added to requirements baseline before SwRI can implement.

CCTV Scheduler Design Review Comments - continued

6		Dec 1, 2006	Will any sequence or schedule information be displayed in the CCTV details window? Will there be a mechanism to determine what sequences are currently scheduled for a given camera?	D4	There are no current plans for incorporating scheduling information into the CCTV control dialog – this would need to be added to requirements baseline before SwRI can implement. Note that there will be a "schedule" window that will provide general schedule information (as opposed to filtering it down to a single camera).
7		Dec 1, 2006	In the "Edit Sequence" screenshot, how do you add the PTZ items? There is only an add button for the preset type. Should the text be changed to "Add Item"?	D4	The text should read "Add Item". Once a new item is in place, its type can be changed from Preset.
8		Dec 1, 2006	Where is the "dwell time" parameter configured (from requirement TV001C4)? Is that the function of the duration column in the edit screens? The duration column is not depicted as editable; will the administrator be able to change the duration values?	D4	The duration column will be editable, and does represent the dwell time of presets.
9		Dec 1, 2006	The "Device schedules" screenshot depicts the capability to suspend an entire schedule in the system. How does the operator suspend a group of cameras but leave the rest of the schedule active? When the operator receives the notification that the schedule is suspended, will there be an option to resume a subset of the suspended cameras? For instance, what if there are several incidents and one has cleared up, and the operator wants to resume the cameras closest to the cleared incident but leave the cameras near the other incidents suspended?	D4	Support for "Groups" of cameras is not something current in the SunGuide requirements. The comment addresses a "subset" of cameras – how would this be specified by the operator. Requirements need to be added that describe the needed functionality.

CCTV Scheduler Design Review Comments - continued

10		Dec 1, 2006	How will the system allow the administrator to set up a staggered schedule of camera sequences? Could this be easily configured to repeat every hour on the hour (without spending a lot of time configuring individual schedules with slightly different times)?	D4	SwRI can find a way to accomplish this, but isn't clear on the exact outcome desired. If D4 could provide a short sample of the desired functionality, SwRI will attempt to accommodate the request.
11		Dec 1, 2006	Possible Enhancement - how will the operators view at set of sequences that have been put in a schedule? An association needs to be created between a schedule of CCTVs with staggered sequences and a Tour of these CCTVs. This would enable an operator to view one monitor while all CCTVs in a schedule are being put through their sequences of activities.	D4	As mentioned above, additional details about schedules will be displayed to operators in the implemented version of the GUI. For the latter idea, it may be more cost effective to have the schedule continuously put all cameras through appropriate sequences, and have a tour of those cameras that is not associated to the schedule. This would prevent the tour and camera schedule from getting out of sync. Alternately, new requirements could be added to include video switching commands in the scheduling subsystem.
14		Dec 1, 2006	I agree with District Four comments. If a manual sequence is invoked for a CCTV camera which has a preset schedule already defined, after the manual preset is executed will the camera still be affected by the next scheduled event of it's original preset schedule.	D7	As currently designed, all schedules will continue to run on a device, even when they overlap– if this needs to operate differently there would need to be added to be changes to the requirements baseline before SwRI can implement..

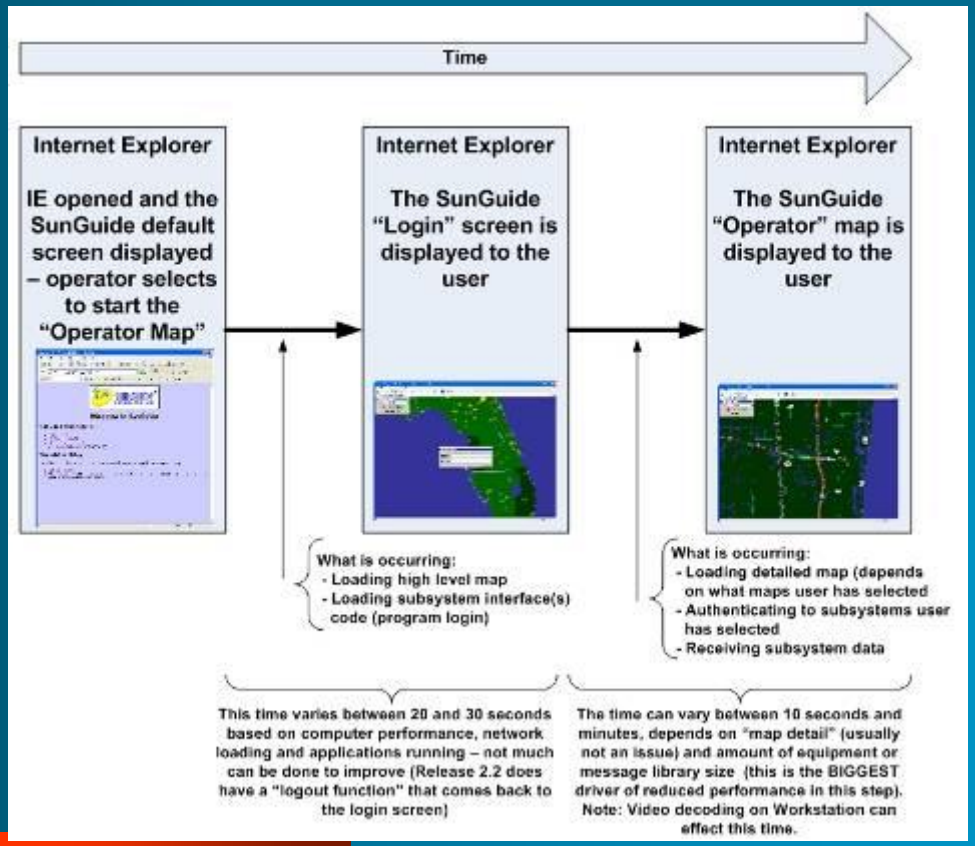
CCTV Scheduler: Summary

- Being implemented as a "traditional" SunGuide℠ "subsystem"
- Subsystem will manage / store schedules
- Administrative editor will be used to create schedules
- GUI will be used to "control" (start / stop / suspend) schedules
- Development status: to be completed by end of February 2007

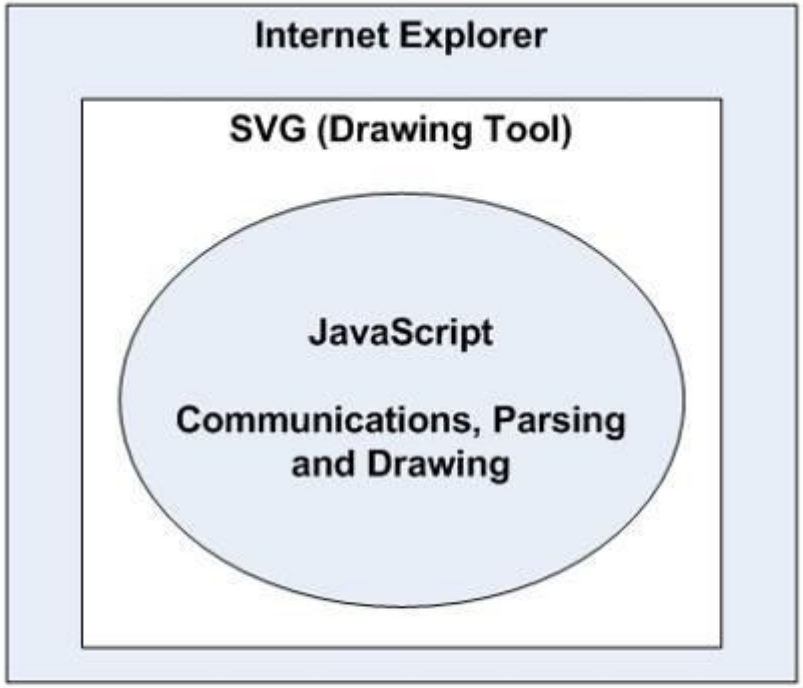
Questions?

GUI Performance Enhancement

- Questions about SunGuide℠ map "performance":
  - Performance issues are based on XML messages being processed by GUI (and not map rendering)
  - GUI enhancement in process to address parsing issue

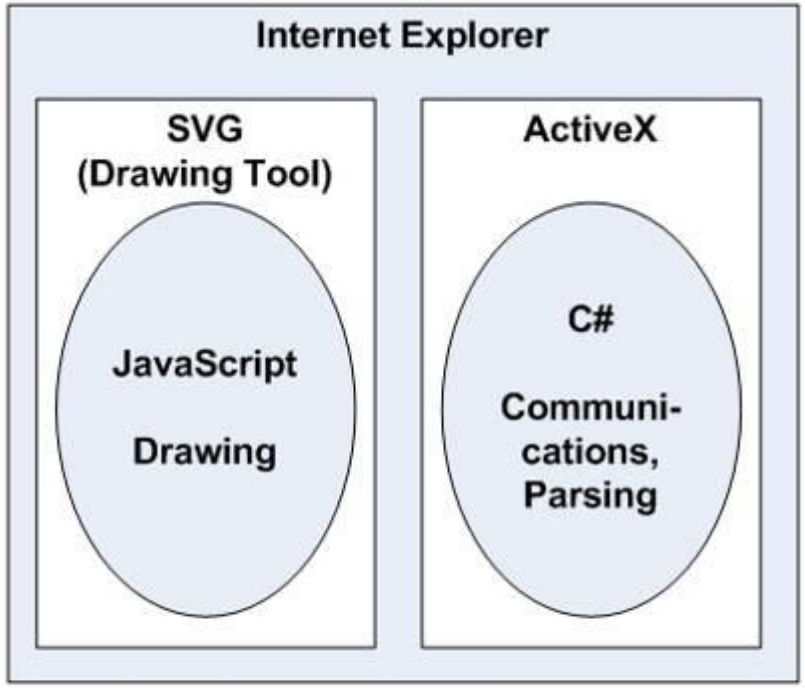


GUI Performance Enhancement Currently Being Implemented



SunGuide exchanges MANY XML messages to exchange data – this is most significant processing component in the GUI. The map is not the processing "hog" - the processing "hog" is the parsing of XML messages.

The current implementation is single threaded using an "interpreted" language (JavaScript)

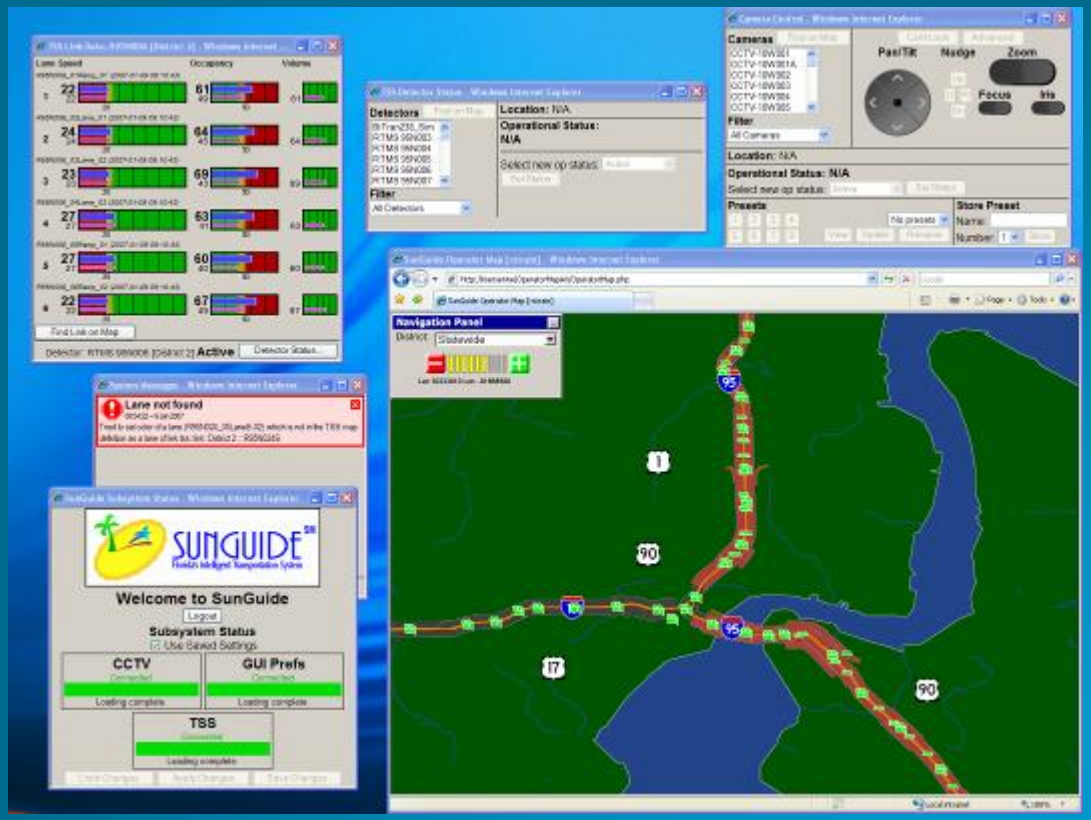


By utilizing ActiveX, a C# application (which would reuse a significant amount of code from existing systems) could be implemented to allow a multi-threaded environment that would significantly enhance the XML parsing.

C# is a byte coded language that is significantly more efficient than JavaScript. Note that ActiveX would need to be enabled to use this approach.

GUI Performance Enhancement: Summary

- New framework created
- Porting each individual subsystem GUI
- Development status: to be completed by end of February 2007



Questions?

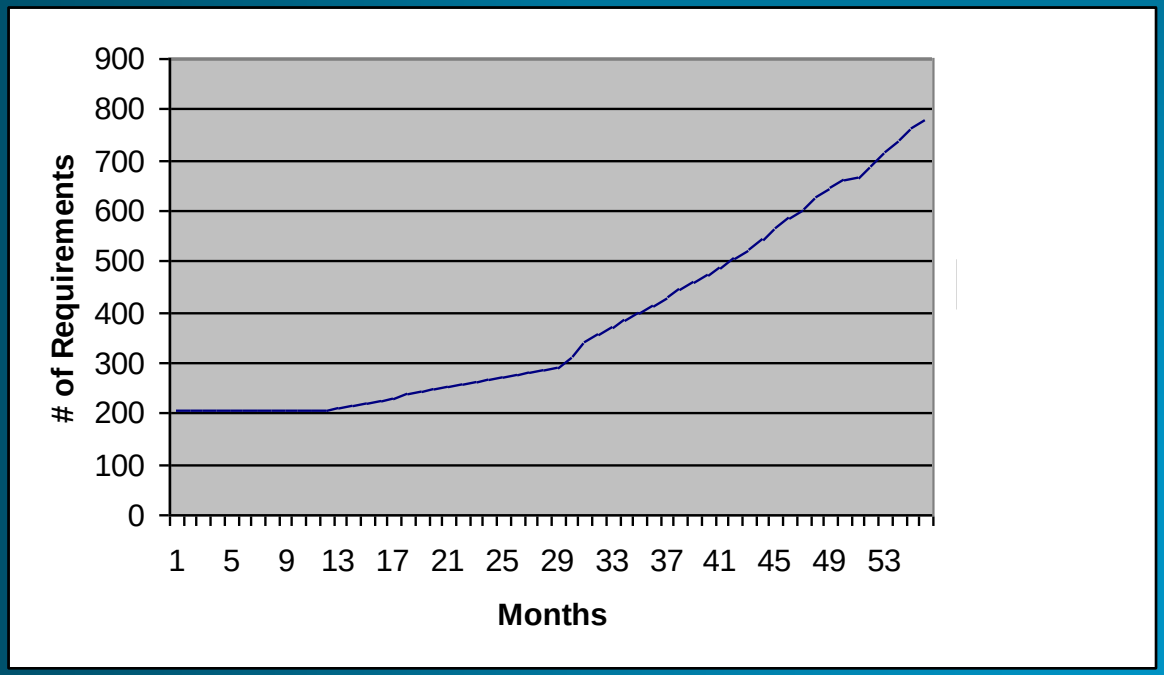
Change Management Board

SunGuide℠ Software Release 3.0 Requirements Discussion and Vote

John Bonds

Requirements Growth

- 784 total Requirements to date
  - SunGuide Release 1 had 207 requirements
  - SunGuide Release 2 added 238 requirements
  - SunGuide Release 3 added 339 requirements



Change Management Board

- SunGuide Release 3.0: (Voting Ballot)
  - AVL subsystem – 1 new / 6 changed requirements
  - EM Subsystem
  - PM (Reporting) Requirements
  - Road Ranger Requirements
  - Video Incident Detection Requirements
  - SunGuide Event Viewer Subsystem
  - Amber Alert DMS Message Template

Changes to AVL Requirements

1 new and 6 changed

Vote Required

AVL Requirement Questions - p1/4

AV001L1 - What are decision points?

Assume that it refers to a decision made by the operator to assign a road ranger asset to an incident. Need to confirm with the CMB.

AV002L - What list? History is ordered by date/time does it really matter that SunGuide build a list of locations? Or just store the history and display chronologically?

FDOT is asking that the SunGuide AVL subsystem extract the position reports from the files and order them by vehicle and within each vehicle, order the position reports by time with the most current reported position being last on the list. This needs to be confirmed by CMB

AVL Requirement Questions – p2/4

AV006V1 What is a reference location? How are they defined

It is believed that reference location is the nearest cross street. D4 Provided: At/Before/Beyond/Ramp to/Ramp from nearest cross street/exit.

AV002T4 and AV002T5 This needs to be compared to the status data that is required by requirement AV007V1 and AV011V2

Added "stopped time" to AV007V1 and added "amount of time moving since last stop," to AV007V1 and AV011V2.

AVL Requirement Questions – p3/4

AV005 If you have an 8 hour shift and AVL data coming in on a 1 minute interval, then this report is 9 pages long (per vehicle).

Appears to be a correct statement.

AV008 What do we do if we get AVL data for an unknown vehicle? Ignore it? Why do you restrict it this way?

Ignore data from an unknown vehicle. Defer to D4 to answer the question about restrictions. D4 provided: Configure which vehicles have the AVL/Tablet capabilities and which are entered in the system just for manual tracking.

AV010 How does the driver account for being stopped?

Recommend rewording requirement to something like: "If a Road Ranger vehicle is stopped for a configurable length of time and the status of the Road Ranger vehicle is 'patrolling', the system shall notify the operator." **Needs to be confirmed with CMB.**

AVL Requirement Questions – p4/4

AV001V1 How does the operator justify leaving the geo-fenced area?

Recommend rewording requirement to something like: "If a Road Ranger vehicle leaves the Geo-fenced area and the status of the Road Ranger vehicle is 'patrolling', the system shall alert the operator with a popup notification and an audible alarm." Needs to be determined with CMB.

Changed AVL Requirements - p1/3

AV006	The icon representing the vehicle on the GUI be relocated to show its new position when a position report is received for that vehicle. (reworded)
AV007V1	Vehicle Status shall include at a minimum: vehicle ID, heading, speed, destination, event type, location in lat/long coordinates, stopped time, amount of time moving since last stop, and the last date-timestamp that position data was received. (modified)
AV007L4	A "pop up window" advising of Road Ranger Status shall appear on the GUI if the operator selects a Road Ranger vehicle that is already assigned to another incident. (new)

Changed AVL Requirements – p2/3

AV011V2 The Detailed Vehicle Status window shall display the following information about the most recently selected AVL vehicle icon: Vehicle ID, speed, heading, location, status, stopped time, **amount of time moving since last stop**, operator, beat, nearest reference location (milepost), distance to nearest reference location, and, if available, the following information about the incident the vehicle is responding to: Incident ID, incident severity, incident type, incident description. **(modified)**

Changed AVL Requirements – p3/3

AV009T1 After a configurable number of days, the oldest vehicle position data will be overwritten as new position reports are received. (modified)

AV009T3 The following related data shall be logged, if available: Beat, Driver, reference location, proximity to reference location, status, responding incident ID. (modified)

EM Subsystem Requirements

EMPM Functionality to be included in 3.x

Vote

Changed EM Requirements since last CMB

EM006G2	It shall be possible to designate a lane type as: ◦ Mainlane ◦ HOV ◦ On Ramp ◦ Off Ramp ◦ On Off Lane ◦ Shoulder ◦ C/D ◦ HOT (High Occupancy Toll)	REQ 2.8
EM007G3	The SunGuide GUI shall allow the operator to add a lane anywhere in the exiting lane configuration.	REQ 2.11
EM007G4	The sequence in which the lane types appear shall be editable by the operator.	REQ 2.11
EM007R	Reports shall be able to be filtered on any of the event properties.	REQ 2.1
EM008R	SunGuide shall be able to create a Camera Usage report to show when cameras were locked and by whom.	REQ 2.1
EM009R	SunGuide shall be able to save a report as a Microsoft Word document or an Excel spreadsheet or an Access file.	REQ 2.1

Changed EM Requirements p – 2/9

EM010G1	Operator shall be able to change event type at any time and the change will be time and date stamped in database.	REQ 2.14
EM010G2	The operator shall be able to filter/sort events by county, operator, district, roadway, type, Road Ranger beat(s), and any other data fields contained in the event list.	REQ 2.14
EM010G3	The operator shall have the option to save the filter/sort as a default associated with the operator login and ID.	REQ 2.14
EM019G	A Vehicle List window shall be provided that displays a tabular listing of all the AVL-enabled vehicles.	REQ 2.29

Changed EM Requirements p – 3/9

EM001D1	SunGuide shall retain event information that had an associated vehicle license tag.	REQ 2.13
EM005T3	A drop down box or a pop-up window shall be available that provides a list of agency personnel that is editable by an operator with appropriate permission to allow the SunGuide operator to select the name of the person they spoke with.	REQ 2.23
EM001P1	The performance measures component shall generate statistics and reports based on HOV and HOT lane types.	REQ 3.2

Changed EM Requirements p – 4/9

EM017G	An operator with appropriate permissions shall be able to command the SunGuide to block one or more video camera displays through the video switch.
EM017G1	The SunGuide GUI shall use a popup alert to remind the operator that one or more CCTV are blocked at the video switch.
EM017G2	The popup alert shall be visible to all operators logged on to the SunGuide system.
EM017G3	The popup alert shall remain visible on the SunGuide operator's display until at least one operator confirms the blocked camera status by clicking on a button on the popup that will cause the popup to disappear for a configurable amount of time after which it will reassert itself until an operator again acknowledges it.
EM017G4	The SunGuide GUI shall allow any operator with appropriate permissions to unblock a blocked camera.
EM017G5	There shall be no timeout feature to unblock the cameras, the camera must be unblocked manually by an operator with appropriate permissions

Changed EM Requirements p – 5/9

- EM003R: The SunGuideSM PM subsystem shall support data editing within the Performance Measures data fields only.
- Comments: In agreement with D4 on the need to specify “PM data fields”, however, some PM data fields should be editable only by the administrator of the subsystem. For example, there are certain contractual fines assessed to Road Rangers due to time therefore “Time Fields” should be password protected.
- Response: Please list any other PM data fields that require permissions to be configured.
- D4: Road Ranger timestamps should be protected and required to be entered in real-time. Managers or supervisors should have the ability to change the timestamps.

Changed EM Requirements p – 6/9

- EM016G: The SunGuideSM GUI component shall allow the operator to specify weather conditions for the event.
- Comments: All requirement have been missed regarding Roadway Conditions, these need to be added.
- Response: Please provide the list of roadway conditions. This requirement came from the D4 RRPM Module Functional Requirements authored by Neena Soanes and is a SunGuide 2.2 requirement.
- D4: Pavement (dry, wet, flooded, other), precipitation (none, light rain, heavy rain, other), wind (calm-moderate, sustained 35mph, hurricane, other), visibility (clear, light fog, dense fog, poor-rain, smoke, sun glare, other), illumination (daylight/clear, daylight/cloudy, dawn, dusk, dark w/artificial, dark)

Changed EM Requirements p – 7/9

- EM002T: The EM tracking component shall automatically track the billable/non-billable and available/unavailable for dispatch status of a truck based on its current status.
- Comments: Reporting function should be based on Route/Beat rather than Truck as a certain level of coverage must be provided on each beat rather than for each truck (i.e. if a truck breaks down it can easily be replaced with another).
- Response: The requirement is for tracking truck status as billable and non-billable and whether or not it is available for dispatch or not. This requirement has no relationship to the beat. Please provide a specific requirement for beat tracking
- D4: The system will provide the ability to assign a beat on an in-service truck, and a report will be provided to summarize beat coverage (truck-hours) for any particular time range.

Changed EM Requirements p – 8/9

- **TM005R2 When the operator selects a sign to add to an existing response plan, the Incident management subsystem shall automatically generate the appropriate response plan message for the new sign relative to the location and details of the incident.**
- **TM005R3 When an existing event requires a new response plan, new messages will be generated for all signs involved in the previous response plan, so that all event-related signs are changed appropriately even when the DMS search distance is decreased or increased.**

Changed EM Requirements p – 9/9

- TM005R4 SunGuide response plan feature shall include e-mail alert messaging capabilities.
- TM005R5 Response plans shall provide alert message content that can be edited by an operator with appropriate permissions to be sent to the recipients.

PM (Reporting) Requirements

Vote

Changed PM Requirements since last CMB

- EM005 The PM subsystem shall automatically enter the notification time, on-scene time, and departure time for the road ranger agency.

  Changed “calculate” to “enter”

- TM002D4 added task k “Secure Load”
- EM001R Added Quarterly and Yearly
- EM007R Reports shall be able to be filtered on any of the event properties. (new)
- EM008R SunGuide shall be able to create a Camera Usage report to show when cameras were locked and by whom. (new)

Changed PM Requirements – p2/2

- EM009R SunGuide shall be able to save a report as a Microsoft Word document or an Excel spreadsheet or an Access file. (new)
- EM001P1 The performance measures component shall generate statistics and reports based on HOV and HOT lane types. (new)
- TM004D Added Quarterly and Yearly
- TM007D4 Deleted Length of Web Site visit
- TM007D5 Added “Added 5 minute increments to (a) and "defined" to 4th bullet”
- TM007D6 Added "and level”

Road Ranger Requirements

Vote

RR Changes since last CMB

- TM006D Changed “message” to “document”
- TM009D1 added “by the operator”
- TM006W1 SunGuide graphical operator interface shall provide the ability for the operator to enter the date and time that law enforcement or road ranger was notified of a confirmed SunGuide incident and by what agency by name. This is called Initial Incident Notification Time (tinitialnotification).” (reworded)
- TD008 Added “Video Detection Equipment”
- EM001G The Event Manager tabular screen shall be opened automatically upon operator login based on operator preferences. (reworded)

RR Changes since last CMB – p 2/7

- EM002G1 At the time an event is created in SunGuide, the current time shall be recorded by the EM subsystem as the verification time. (reworded)
- EM003G2 The EM Subsystem GUI element shall represent unresolved events differently than; unconfirmed events, active with lane blockage events, and active without lane blockage events on the display. (reworded)
- EM003G3 Changed “terminated” to “closed”
- EM004G Changed “invalid” to “void”
- EM005G Removed “invalid”
- EM008G The SunGuide GUI component shall allow an operator to enter at least 10 vehicle descriptions for any event, with the following descriptive data: make, model, color, state, and tag. (reworded)

RR Changes since last CMB – p 3/7

- EM002 The SunGuide Oracle database shall support Event Manager functions. (reworded for 3.x)
- EM001T Deleted “gas” as a status.
- EM004T3 Added the list of activities from the RR Procedures Draft V8
- EM001E Added "additional event attributes (Hazmat, Fire, Rollover, Dump Truck, Fatality), and last status date and time"
- EM017G Deleted web pages and substituted video switch.
- EM017G1 substituted video switch for webpage.

RR Changes since last CMB – p 4/7

- EM003R1 Added “appropriate permissions”
- EM010 An operator shall be able to invoke the incident management window, with location information pre-filled by right-clicking on an AVL icon and choosing “create new incident at vehicle location". (reworded for 3.x)
- EM018G1 Changed “zoom” to “recenter”.
- EM010G1 Operator shall be able to change event type at any time and the change will be time and date stamped in database. (new)
- EM007R Reports shall be able to be filtered on any of the event properties. (new)

RR Changes since last CMB – p 5/7

- AV007L4 A "pop up window" advising of Road Ranger Status shall appear on the GUI if the operator selects a Road Ranger vehicle that is already assigned to another incident. (new)
- EM009R SunGuide shall be able to save a report as a Microsoft Word document or an Excel spreadsheet or an Access file (new)
- EM006G2 It shall be possible to designate a lane type as:
  - Mainlane
  - HOV
  - On Ramp
  - Off Ramp
  - On Off Lane
  - Shoulder
  - C/D
  - HOT (High Occupancy Toll).

  (Defined all lane types)

RR Changes since last CMB – p 6/7

- EM001P1 The performance measures component shall generate statistics and reports based on HOV and HOT lane types. (new)
- EM010G2 The operator shall be able to filter/sort events by county, operator, district, roadway, type, Road Ranger beat(s), and any other data fields contained in the event list. (new)
- EM010G3 The operator shall have the option to save the filter/sort as a default associated with the operator login and ID. (new)
- S035 For each SunGuide Subsystem that may require configuration updates after initial installation of the subsystem in the database or an XML file, an Administrative Editor shall be available to facilitate configuration changes. (new)

RR Changes since last CMB – p 7/7

- EM007G3 The SunGuide GUI shall allow the operator to add a lane anywhere in the exiting lane configuration. (new)
- EM007G4 The sequence in which the lane types appear shall be editable by the operator. (new)
- EM019G A Vehicle List window shall be provided that displays a tabular listing of all the AVL-enabled vehicles. (new)
- EM001D1 SunGuide shall retain event information that had an associated vehicle license tag. (new)
- TM001D1 SunGuide shall attach the Radio Number and District number to the data that is collected at the beginning of the Road Ranger Service Patrol Vehicle Operator's shift. (new)

Video Incident Detection Requirements

CitiLog VisioPad Video Detection Devices

Vote

Video Detection Requirements

- TD008 SunGuide shall be able to log and display traffic data collected by CitiLog Video Detection Equipment devices.
- TD001D VisioPaD/Citilog data collected by SunGuide shall supply alert notification, indicating the CCTV that detected the incident, and the timestamp when it was detected.

Event Viewer Subsystem

Restricted Web Site (non-public)

Vote

Event Viewer Requirements p-1/5

SV001	SunGuide shall provide a read-only web site application for TMC personnel that runs on Windows servers and is viewed with modern internet browsers.
SV001B	Secure access to the SunGuide Event Viewer web site shall be through the SunGuide web site.
SV002B	The SunGuide Event Viewer web site shall be accessible through at least the following browsers:AOL, AOL Compuserve, AOL Netscape, Open Ride, Internet Explorer, MSN Explorer, Firefox, Mozilla, Sea Monkey and Opera.
SV002	The SunGuide Event Viewer web site shall be secure employing the Secure Sockets Layer cryptographic protocol or the Transport Layer Security cryptographic protocol.
SV003	The SunGuide Event Viewer web site shall prompt the user for a username and password to gain access to the application.
SV004	The SunGuide Event Viewer web site session shall only be terminated through the use of a logout button.
SV001S	The SunGuide Event Viewer web site shall be capable of authenticating operators based on their originating IP address.

Event Viewer Requirements p-2/5

SV005	The SunGuide Event Viewer web site shall make SunGuide data available for access within 30 seconds of when it was entered into SunGuide.
SV006	The SunGuide Event Viewer web site shall refresh automatically at a system configurable interval, with the default set to 60 seconds.
SV002S	Passwords associated with the operator accounts shall be stored in an encrypted format.
SV007	The opening page after secure login of the SunGuide Event Viewer web Site shall be an event list page.
SV001E	The "event list" page shall have three sections: active events with a lane blockage, active events without a lane blockage, and recently inactive events.
SV001E1	The recently inactive events section shall display all the events that were active in the recent past that is a configurable amount of time.
SV001E2	This recently inactive period shall be configurable, with 30 minutes set as the system default.

Event Viewer Requirements p-3/5

SV002E	The active events section shall display the following information: Record Number / Identifier, the initials of the operator managing the event, creation timestamp, road rangers dispatched and on-scene, event type, location description, and description of blocked lanes
SV003E	The inactive events section shall display the following information: Record Number / Identifier, the initials of the operator managing the event, creation timestamp, road rangers dispatched and on-scene, event type, location description, and current status (unresolved, closed, voided, etc.)
SV004E	Each section of the events list page shall use a different background color to easily differentiate the lists.
SV005E	For each event list record, the operator shall have the ability to select the record and view the "Event Details" page.
SV005E1	The SunGuide Event Viewer web Site shall provide an "Event Details" page that will display details about a specific event record.

Event Viewer Requirements p-4/5

SV005E2	The "event details" page shall display the following information if available: event record number / identifier, current event status, record creation time, TMC managing the event, notifying agency, ID of the primary event if the current record is a secondary event, event type, hazmat, fire, rollover, injuries, a list of vehicles involved including color/make/model/state and tag, estimated clearance time, alternate roads, event location, event congestion, lane blockage description, and roadway conditions.
SV005E3	The "event details" page shall display road ranger related information if available that at a minimum includes an indication that road ranger was dispatched, on-scene arrival time, departure time, and activities performed.
SV005E4	The "event details" page shall display agency response information if available, including the name of the agency, whether or not they were notified by the TMC, and the notification, on-scene, and departed timestamps.
SV005E5	The "event details" page shall include a chronology summary section, that will display in chronological order the status, responder, road ranger, location, blockage, congestion, and DMS usage data entries.

Event Viewer Requirements p-5/5

SV008E	Secondary events shall be associated with a primary event.
SV008E1	A secondary event shall have a link to the "event details" screen of the primary event that the secondary event is associated with.
SV006E	A navigation link to the "event list" page shall be provided on the "event details" page.
SV007E	The SunGuide Event Viewer web site shall take no more than 2 seconds to refresh the "event list" or "event details" pages.
SV008	An administrative application shall be provided to set-up operator accounts for the SunGuide Event Viewer web page application
TM009W	The SunGuide GUI incident management event entry screen shall provide a field for the operator to enter the ID of an event that is currently open or has been closed within the last hour that is considered to be a primary event causing the event being created or edited.

AMBER Alert DMS Message Template

2 Requirements

Vote

Amber Alert Requirements

- **TB001A SunGuide shall provide an incident type called "Amber Alert" that will be associated with a DMS message template for the Amber Alert Message.**
- **TB001A1 The Amber Alert Message template shall contain fields for the operator to fill in for specific information related to the amber alerts such as vehicle make/model, vehicle color and license tag number.**

Change Management Board

SunGuide℠ Software Release 3.1
Travel Time Enhancements

Steve Dellenback

Purpose of Travel Time White Paper

- Document how travel times can be used in the current SunGuide^{SM} implementation
- Paper generated a number of recommendations for enhancements and suggestions to modify the current software, these require:
  - Requirements refinement
  - Approval to implement the modifications
- The following are the significant comments that need to be discussed (comments that require no discussion were not included)

Travel Time White Paper Comments

6	General	1.0.0	Does TVT currently have Dynamic Linking? If so, is it an automated process. How many TSS links can return missing data and still calculate the TVT time. An example, can TVT have 3 TSS links missing in a row and still calculate TVT time for that area.	D4	No. The paper explains who "missing data" is addressed – additional explanation to #2 above may also address this comment.

#	Reference	Version	Comment	Reviewer	Response
7	General	1.0.0	It seems the Admin editor accepts 0 as a valid length for a link, we would expect the Admin editor to catch that before allowing the user to save the TVT link record. An observation, perhaps this behavior is known and accepted: using the Admin editor we found that only one distance is applied to a given TSS link, so that if we create another TVT link which includes the same TSS link, the same distance is used in both TVT records. The assumption here is that the total distance of a link shouldn't vary, but a potentially unintended result exists where the entire distance of the links on both ends of the TVT link must be used in the calculation, even if the starting point (DMS) and ending point (destination/cross street) do not fall perfectly on the detector boundary. This will bias the travel time calculation on the high side by including the extra roadway distance which is not between the sign and destination/cross street.	D4	Minor SunGuide Software Enhancement Recommended for Near-term Patch. Additional clarification for FDOT should be provided before the patch is implemented.

Travel Time White Paper Comments - continued

#	Reference	Version	Comment	Reviewer	Response
8	Enhancement	1.0.0	We have also observed that the travel time scheme doesn't seem to include travel time capability for response plans. For instance, a response plan could have a second phase (or for a large enough sign, a single phase) which includes travel time calculations in addition to the message. It may also be useful to post construction messages along with travel times as another example. Although you could create a message template with free text ahead of time, this is not a dynamic solution and requires an administrator to implement There are no depictions of how the travel time calculations are made available to the operator, or how the operator can monitor their status and accuracy, besides monitoring the content of the DMS messages. Is there any notification to the operator if a travel time link can no longer be displayed based on the percentLanesWithData threshold?	D4	Major Feature or Function to be considered by CMB for future SunGuide Software release
9		1.0.0	Is there any interest from any District to schedule the travel times for certain times of the day, for instance rush hours only? Would it be useful to only post travel times when they are longer than the free flow time, thus conserving DMS usage? Or is it desired by all Districts that the times are always posted to provide consistency to the motorist?	D4	Major Feature or Function to be considered by CMB for future SunGuide Software release

Travel Time White Paper Comments - continued

#	Reference	Version	Comment	Reviewer	Response
10		1.0.0	This brings up a whole other topic, congestion management. The TVT subsystem really has no intelligence. A district decides the distance of a segment they desire to post travel times for, creates a template message for the DMS and the system inserts the travel time in it. I would like to request that the CMB starts looking at developing a congestion management subsystem for SunGuide. Specifically the following conditions: • Rush Hour (AM and PM) = DMS Two Phase - Queue + TT • Incident + Queue = DMS Two Phase - Incident + Queue (Caught in Queue message would be Incident + TT) • Construction = DMS Two Phase - Event + Queue (Caught in Queue message would be Event + TT)	D4	Major Feature or Function to be considered by CMB for future SunGuide Software release

Travel Time White Paper Comments - continued

#	Reference	Version	Comment	Reviewer	Response
11		1.0.0	Additional District 4 comments and concerns; Concerning footprints 51: • As SwRI suggests, we could add the ability to group the tags in such a way that portions of the message can be automatically removed if data is not available. • TVT could automatically parse out sections of the message based on assumptions. For instance, you could remove everything in one of the phases if there is only one travel time tag per phase. The problem with this approach is that it assumes a particular format for the message templates which have much more flexibility, and we could end up in a situation where the system is automatically removing pieces for message template formats that don't match our preconceived cases and produce erroneous messages. • We could replace the travel time tag with "?" or "unknown", but this would be a terrible route to take. • Issue 51 brings up an interesting point….that being "What do you want to do when you have 2 destinations mentioned on a travel time message displayed on a DMS, but one of them does not have sufficient data to complete the TVT calculation. Seems that the answer is that it reverts to a 1 destination TVT template.	D4	Requires updates to SunGuide requirements. No document update required.

Travel Time White Paper Comments - continued

18	Page 2, Figure 8	1.0.0	The term "MISSING DATA" is used versus "failed" on page 2. What are the parameters for not using a lane/detector value? During peak traffic we have conditions where a lane approaching an exit will have a significantly slower speed than the other lane, e.g. lane 1 speed = 60, lane 2 = 55, lane 3 = 20. If this exit is not a destination exit for one of our travel time postings can we exclude lane 3 from the averaging through parameter settings? How will this be handled? Can we have system automatically ignore a lane reading at a given time?	D6	Cannot be handled with the current SunGuide requirements. No document update required.
20	Section 1.3	1.0.0	Consideration should be given to expanding this section to clarify that the travel time calculation assumes that the vehicles remain on the link for the total link distance. This process will miss vehicles that exit the system prior to reaching the end of the link. This requirement may restrict the system to links that are closed such that there is no opportunity to exit within a link.	FTE	The comment is appropriate for a "probe based" travel time computation but not appropriate for the requirements currently included in SunGuide. No document update required.

Travel Time White Paper Comments - continued

#	Reference	Version	Comment	Reviewer	Response
21	Section 1.3	1.0.0	Is averaging averages (summing the average speed from a number of links) acceptable for such a calculation? Point speed from detecting devices may be misleading, depending on spacing of detectors.	FTE	This would require a change to the SunGuide requirements. No document update required.
22	Section 1.3	1.0.0	Can this data be used to determining origin - destination data?	FTE	No. No document update required.
23	Section 1.3	1.0.0	Can or should this data be used to determine vehicle type? Average vehicle length? It might be based upon specifications of the specific devices used.	FTE	No. SunGuide does not collect this type of data (would need a requirement change). No document update required.
24	Section 1.3.1 and 2	1.0.0	A partially blocked lane may skew the data if averages are derived by lane. A lane with 10 MPH average speeds in the same zone with lanes that are experiencing 40 MPH speeds will present ((2X40=80) +1X10)=90/3 or 30 MPH. This will reflect a 25% delta for two lanes and a 200% delta for 1 lane. Is this acceptable? The assumption is that a good bit of calibration will be necessary by the operations staff to fine tune the process.	FTE	Agreed. No document update required.
25	Section 1.3.1 and 2	1.0.0	Was any consideration given to contra flow traffic impact on the TTS?	FTE	No. No SunGuide requirement to address the issue. No document update required.
26	Section 1.3.1 and 2	1.0.0	The rest of the document follows the standard TTS process at a high level. Some consideration should be given to establishing saturated flow rates by lane in order to establish a normal high and low TT value for each link under normal conditions (non incident).	FTE	Would require a SunGuide requirement change. No document update required.

Questions?

Change Management Board

SunGuide^{SM} Software Release 3.1

Tallahassee LPR and iFlorida Enhancements

Trey Tillander

Change Management Board

Closing and Action Item Review

Steve Corbin, CMB Chairman

Change Management Board

Additional Requirements

John Bonds

Responder Audit Feature Requirements

New SunGuide Functionality

RA Requirements

- Generated because of D4's involvement with the Severe Incident Responder Vehicle (SIRV) pilot program
- Could be implemented statewide in 6 to 9 months
- Requirements are related to other EM and RR requirements so it may be cost effective to consider when EM and RR modules are opened

Recommend deferring until a decision is made for statewide implementation of the SIRV program

However

Responder Audit Requirements p-1/3

EM011	The responder audit function shall provide the capability to add, delete, or edit responder agency timeline, vehicle response timeline, and responder activity data in the SunGuide database.	RA 1.1
EM001U	All operator changes shall be logged in the database for traceability, including the new value, previous value, the user who made the change, and the time the change was made.	RA 1.2
EM002U	All operator changes shall be displayed in the chronology report with an indication that specific information has been changed.	RA 1.3
EM003U	The operator shall be able to run a report using the SunGuide report function to review changes made and logged by the audit function.	RA 1.4
EM004U	The operator shall have at least three ways to select an event: (1) by typing in the event number directly; or (2) selecting from the list of active events, or (3) selecting from a filtered list of all events.	RA 3.1
EM004U1	The operator shall be able to filter events by month, location, type, blockage, or responding agency involved.	RA 3.1

Responder Audit Requirements p-2/3

EM020G	A Responder Audit screen shall be incorporated into the existing audit feature of the SunGuide GUI, using the existing permissions scheme and user authentication methods of the SunGuide GUI.	RA 1.5
EM020G1	The operator shall be able to add, delete, or edit agency notification, on-scene, and departure times.	RA 2.1.1
EM020G2	The operator shall be able to leave any of the fields blank in case that information is not available, except that a record must have at least one timestamp entered.	RA 2.1.2
EM020G3	The operator shall be able to add, delete, or edit vehicle response records for agencies with responding vehicles (Road Ranger, SIRV, etc.).	RA 2.2.1
EM020G4	The operator shall be required to provide the notification time and either the arrival and departure times or the cancellation time.	RA 2.2.2
EM020G5	The operator shall be able to add, edit, and delete activity records associated with vehicle response records.	RA 2.3.1
EM020G6	The software shall require the operator to enter the time that an activity was performed, however the software shall also require the timestamp to fall within the arrival and departure timestamps for the vehicle record.	RA 2.3.2

Responder Audit Requirements p-3/3

EM020G7	The GUI shall warn the user when a timestamp is entered which is earlier than the event start time or later than the event closed time.	RA 4.1
EM020G8	The operator shall have the option to enter a quantity associated with an activity, such as gas, when the activity is configured as "quantifiable".	RA 2.3.3
EM020G9	The GUI shall display a summary of all the agency response times, the detailed vehicle response time records, and all the activities performed.	RA 3.2
EM020G10	The GUI shall display the event location, event number, and blockage history for an event.	RA 3.3
EM020G11	The GUI shall provide an event chronology summary window with the ability to generate a report.	RA 3.4
EM021G	A comments field shall be provided for the operator to enter free-text data.	RA 2.5
EM012	Activities shall be classified in the software as quantifiable or not.	none

20 new requirements

E-Mail Alert Personalization

Custom E-Mail Alerts

E Mail Alerts

- Functionality will be included in the Statewide 511 System due be deployed in 2008.
- All but 2 requirements were added to Statewide 511 System for competitive procurement.

Added 2 Requirements to SunGuide

- D4 ID: EML1.1 TM005R3:SunGuide response plan feature shall include e-mail alert messaging capabilities.
  - Similar to EM007: The EM subsystem shall allow operators to send email alerts to subscribers with summary information about an event.
- D4 ID: EM1.8 TM005R4 Response plans shall provide alert message content that can be edited by an operator with appropriate permissions to be sent to the recipients.