



SunGuideSM Status and Demonstration Meeting Minutes



Date: Tuesday, April 5, 2005 – Wednesday, April 6, 2005

Time: 8:30 am to 4:30 pm CDT

Location: Southwest Research Institute
CDRL 1-8.2.18

Attendees:

Liang Hsia, FDOT	Steve Dellenback, SwRI
David Chang, PBS&J	Susan Crumrine, SwRI
Walt Townsend, Siemens ITS	Bret Sadler, SwRI
James Bitting, GCA/D7	John Brisco, SwRI
Arturo Espinosa, D6	Meredith Moczygemba, SwRI
Peter Man MDX	Bruce Farmer, SwRI
John Bonds, PBS&J	Roger Strain, SwRI
Steve Corbin, D4	Steve Sprouffske, SwRI
Elizabeth McCrary, D7	Amit Misa, SwRI
Craig Vahle, D4	Dan Baxter, DKS Associates
Emily Sterzin, Cambridge Systematics/D4	

Subject: Project Status Meeting for SunGuideSM

Note: Agenda and slides for each agenda item are available from the project website at:

<http://sunguide.datasys.swri.edu>

Item #1 – Project Status Report

- Steve Dellenback presented slides
- Bonds noted that the Concept of Operations for Incident Management through Center-to-Center Communications is not currently well defined, and needs to be addressed for Milestone Demo #3.

Item #2 – Functionality Being Added to SunGuide

- Steve Dellenback presented slides.
- Noted that this is meant to be an early look for the FDOT which should generate requests for modifications now rather than after final testing and deployment.
- Incident severity discussion

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- SwRI outlined current severity paradigm, and how it is included in the search distance used for response plans.
- D4 asked that severity, for search distance, be based on lanes blocked.
- D4 asked that IM track official severity automatically (D4 wants the severity automatically updated as the incident progresses). D4 Steve Corbin see “official” severity as something calculated on incident close for reporting purposes.
- D4 suggested 0-24%, 25-49%, 50-100% for lane blockage thresholds for severity.
- SwRI asked if duration based severity should be configurable, and the general response was yes, but default to state standards.
- D4 asked if milepost allows for only whole numbers, or tenths. SwRI responded yes.
- SwRI asked if incidents should only be allowed to be placed on roadways, or allowed to be placed anywhere on the map and have a roadway entered automatically. FDOT will consider this during testing.
- Central Office asked if there was any performance hit for using .WAV files for audio alarms. SwRI responded no.
- DKS asked if IM should generate response plans using equipment from other districts. SwRI noted that C2C doesn't currently support making incidents in another TMC's center based on FDOT direction/guidance.
- D7 asked if there is a way to connect 2 different incidents conceptually if the same incident is created in 2 different centers. SwRI responded that that this could be done with the “associated events” field of an incident.
- D4 asked if the incident was unique in the state based on the incident number. SwRI said no, but C2C does note the center which an event came from, so the event (as well as all devices) is unique if you use the centerid/device id combination.
- C2C discussion:
 - D4 thinks that just having an icon might not be enough to alert the operator. There may need to be a way to view C2C incidents in a list.
 - D4 believes the district which owns an event should have its software notify nearby districts that may be effected.
 - Central Office noted that IM could use some form of the response plan generation to determine if outside events may affect the local district.
 - D4 thinks it should still be distance based, and if the distance breaks the county line, the other center should be notified.
 - D4 noted that districts must have separate events in order to create response plans for their own devices.
 - Action: Central Office to update and distribute the Incident Management and C2C Operational Concept paper.

Item #3 – Review of FAT Issues and Actions

- Steve Dellenback discussed FDOT Central Office document along with a hands-on presentation of the issues/results.

Item #4 – Training

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- Steve Dellenback presented slides.

Item #5 – Ad Hoc Testing and Evaluation (items refined during April 6 meeting)

- Steve Dellenback presented slides.
- System problems identified:
 - Presets on Vicon NTCIP CCTV device: the presets stopped working on the Vicon CCTV device - this is known hardware bug that requires power cycling of the CCTV device – no software restart was necessary – normal operation returned after the power cycle
 - DMS failure: An unapproved word was entered into a message and two operators simultaneously responded to the “approve unapproved word dialog” – the DMS subsystem responded correctly to the first response but on receiving the second response the DMS system entered a strange state that also effected the Data Bus – SwRI programmers identified the problem and installed a fix while ad hoc testing continued.
 - Video Wall: communication with the subsystem failed – no reason yet identified
- SwRI Functionality questions:
 - Should incident be allowed to be placed anywhere on the map (i.e. not on a SunGuide highway)? Consensus was this is acceptable (i.e. do not limit incidents to SunGuide highways).
 - If an incident is “moved” (via the map), should the incident information be updated? D6 suggested that if an incident is moved that any active response should be automatically canceled and a new recommended response plan be generated for operator action.
- User suggestions (categorized by SwRI):
 - Suggestions to implement (i.e. SwRI will do within the current scope):
 - GUI:
 - On many regular buttons: Disable button and change text after press, while working
 - If a CCTV icon is selected on the map, bring up either the Video Wall or Video Switch dialog with the device “pre-selected”.
 - Acknowledge alarms by right clicking on lane
 - Change font size of road name label (in link/shield editor)
 - DMS conflict doesn't show what DMS the conflict is for, also sometimes the user name is not defined
 - Event icon mouse over and event data not always consistent in data
 - Verify removing buttons for power on/off are removed from screen (this should be done because the CCTV devices being procured by FDOT do not support this capability as desired)
 - Mouse over incident icon does not show incident number
 - Do not flash construction icons (if un-owned) – SwRI will try to make this a configurable item.

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- Filter devices by roadway, a filter box (like the one on the event manager) will be provided to allowing filtering of any device list by roadway.
 - Increase association between map icons and entries in dialogs (option to show particular device from dialog, and/or access dialog from icon) – this feature will allow the device selected to be automatically brought up in the appropriate control or status dialog
 - Provide the capability to display lakes/streams; issues:
 - GDT data does have this data on a county by county basis, SwRI would need to:
 - Modify the GDT conversion application
 - Modify the GUI to allow this data to be “set” on a per user basis in a fashion similar to roadway selection
 - SwRI notes that this will affect the map performance
 - Provide the capability to show county borders in the map
 - Button on IM Event Data window to recalculate prefilled data fields after the fact
 - Automatically “open” save windows when logging in – only the base (core) windows will be opened.
 - Lack of feedback to operator in IM (D7):
 - IM GUI: once a response plan is activated should the window disappear?
 - Would like the screen to save and close when "close event" is selected
 - Gray out the “activate plan” button after the plan has been activated – the button state only changes of the response plan has been modified.
 - Disable Save Event button when event data has not changed (or rather once it has been changed do not activate again until a change is made)
 - When a queue is selected, would like the device to highlight on the map and vice versa.
 - Add a “are you sure” dialog when a user requests to activate a response plan.
 - Add device specific context menus as appropriate.
 - On IM event mouse over, display the incident ID and start time.
 - Allow the font and color to be selected when entering text on the Device/Link editor.
- IM:
 - Verify that IM generates responses plans based on number of lanes blocked

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- System configuration values for three levels lane blockage distance search will be provided, default values will be (the percent range numbers as well as the miles will be configurable):
 - 0% – 24% lanes blocked => x miles
 - 25% - 49% lanes blocked => y miles
 - 50% to 100% lanes blocked => z miles
- Start automatically generated response plans at 2 rather than 1 (because manually generated messages default to 1).
- IM should automatically “compute” severity level (range of 1 to 3) based on the duration of the incident, the following will be implemented:
 - When an incident is “closed” the severity level will be calculated and stored
 - When a response plan is updated, the severity will be re-calculated
- MCP:
 - Users asked if a “speed factor” could be set for the MCP so that joystick sensitivity could be changed through a configuration file (note SwRI will demonstrate this on the morning of April 6) – this value should be configurable by “application” and not by keyboard.
 - Change keyboard to me a model M300 rather than a 2088 (both American Dynamics)
 - Implement a “next/previous” functionality with the keyboard. Simply cycle through the alphabetized list of CCTVs (wrapping around at the end)
 - Would like preset button on MCP to move thru a preset number of presets when the preset key is repeatedly pressed
- Center-to-Center (Release 2 feature):
 - When displaying devices both the center id and device id shall be displayed.
- Suggestions to evaluate/discuss and possibly implement (if not implemented they will be added to a future enhancements list):
 - GUI:
 - Would like to right click on DMS with option to add to response plan (list of incidents) – what incidents would be included in this list?
 - Once a CCTV is selected, can the keyboard “arrow” keys be used to control pan and tilt?
 - Login screen looks as if it has the focus, but does not (the window is a SVG generated window) – “dismiss” button does have focus. SwRI will evaluate the effort to rework this screen.
 - IM:
 - On a periodic basis prompt the users if the severity levels of incidents should be updated

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- Suggestions to be added to future enhancement list
 - Travel times: SwRI to develop a paper on how Travel times could be automatically posted to DMS devices
- Questions/Suggestions that require no action by SwRI:
 - Will main streets be named? Roadways can be named. This can be done via local configuration with the editors provided.
 - FDOT will develop a TMC ID standard for C2C (this is a configuration value entered when SunGuideSM is installed)

Item #6 – Demonstration Summary Discussion: Next Steps

- Steve Dellenback presented slides.
- District summaries:
 - District 7:
 - The update release is a good software system that will provide TMC operators with tools to control TMC operations.
 - They view the software as a beginning of a product that will evolve over time – new functionality will be added as ITS demands change
 - District 6:
 - The updated version will be useful.
 - They agree with District 7's assessment
 - MDX:
 - The update release has improved functions and features from the version tested during January 2005 – enhancements are a big improvement
 - Software is “ready to go”.
 - District 4:
 - Users provided the software developers with challenges. The software developers met the challenges and met the requests that FDOT gave them after the January 2005 testing.
 - Bret Sadler (SwRI's on-site representative) is a good conduit for conveying users' requirements.
 - District 4 is ready to receive the software after successful acceptance tests.
 - District discussed plans to deploy in June 2005 if software factory acceptance test is acceptable.
- Schedule:
 - SwRI to provide SICP to FDOT by May 1, 2005
 - FDOT to provide SwRI with a M300 keyboard ASAP
 - FDOT will perform IV&V informal testing the last two weeks of May
 - Factory Acceptance Testing (FAT) to occur June 1, 2005
 - Installation at District 4 to start June 13, 2005 depending on the FAT results

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ACTION ITEMS

Numbering of Action Items is based on all action items identified on the SunGuide project.

Number	Responsible	Text	Due Date
62	FDOT Central Office	Updated the Incident Management and C2C Operational Concept document and distribute for review.	4/15/05
63	SwRI	SD action item. SwRI to write paragraph for C2C con-ops about districts sharing events, or being alerted about incidents which affect them from other districts. This paragraph also covers unique TMC ID to associate incident ID with specific TMC.	4/15/05
64	SwRI	Develop a white paper on how travel times could be generated for display on DMS devices by the SunGuide system.	4/15/05
65	SwRI	Develop a white paper on automatic failover solutions for the SunGuide system.	4/22/05