



Change Management Board Meeting

Video Conference: CO- Burns Video Bridge 3

Audio: 850 – 414 – 4660



Welcome and Call for Quorum

Peter Vega, CMB Chairman



Change Management Board



Time	Item	Lead	Supporting Materials
1:30 – 1:35	Welcome and Call for Quorum	Vega	
1:35 – 1:40	New Member Introduction: <i>Arun Krishnamurthy - Central Office</i> <i>Dong Chen – District 4</i> <i>Wayne Bryan – City of Tallahassee</i>	Vega	
1:40 – 1:50	Previous Meeting Recap and Action Item Review	Vega	Feb 13, 2009 Meeting Notes
1:50 – 1:55	SunGuide message on the DMS: Accident, Incident and Crash	Chang	CMB.ppt
1:55 – 2:35	SunGuide Software Footprints Issues Review <i>FP# 1123 DMS Sequences</i> <i>FPs to verify</i>	Heller	CMB .ppt
2:35 – 2:50	Microsoft SQL Server Compatibility	Heller	CMB .ppt
2:50 – 3:20	Alternate Map Approaches	Dellenback/ Krishnamurthy	SunGuide ALTM-1.0.0.pdf
3:20 – 3:30	Closing and Action Item Review	Vega	



Change Management Board



New Member Introduction

Peter Vega



New Member Introduction



Arun Krishnamurthy, P.E.

- **ITS Software and Architecture Coordinator**
- **SunGuide Project Manager**
- **Has over six years of experience in ITS and traffic operations.**
- **P.E. license in the state of Florida**
- **Previously worked at the Central Office as Consultant from 2003 to 2005.**
- **Master's degree in Transportation Engineering (with emphasis in ITS) from Vanderbilt University, Nashville.**





New Member Introduction



Dong Chen

- District ITS Engineer
- District 4's ITS Program Manager
- Have been with FDOT for 6 years
- Is responsible for overall district wide ITS planning, budgeting, design, deployment, operations & maintenance.
- B.S. Degree in Computer Eng. from University of Florida
- M.S. Degree in Civil Engineering from Florida International University
- M.B.A Degree from Nova Southeastern University





New Member Introduction



Wayne Bryan

- City of Tallahassee's Signal System Engineer
- Manage the Tallahassee Advance Transportation Management System (TATMS) Traffic Management Center
- Have been with City of Tallahassee – Traffic Engineering Division for 15 years
- Previously worked for Transyt Corp (later Peek Traffic) as Field Service Manager and Cabinet /Controller /Central System trainer for 8 years





Change Management Board



Previous Meetings Recap and Action Items Review

Peter Vega



Feb. 13 09' CMB Action Items



1. **Slide 28, Ocala/Marion County ITS Architecture: District 5 will provide detail of the update regarding the Ocala/Marion County ITS Architecture to Trey Tillander who will present the update at the next CMB meeting. No change.**
2. **Slide 34, Footprint 222: SwRI will provide ROM for updating the naming convention drop-down display to Trey Tillander.**
3. **Slide 34, Footprint 222: Jennifer Heller will coordinate with the SSUG regarding the naming convention.**
4. **Slide 35, SunGuide Installation Documentation: SwRI will provide LOE/ROM to Trey Tillander for a Generic Installation Guideline and for a Web-based FAQ separately. Did not do due to questions that need to be discussed with CO.**
5. **J. Hope will check the requirement CA005A1 XML comment field and add "lane blockage" to the requirement language. This item will be covered in the ConOps.**



Feb. 13 09' CMB Action Items



6. SwRI will provide Scope, Requirements and ROM to Trey regarding EIS new device.
7. Pete Vega will coordinate the Oracle RAC license and Win. 2008 Environment issues in the future.
8. SwRI to provide "Map Technology Whitepaper" to Trey and present in next CMB.
9. District to provide review comments of FHP event notifier and send comments to David Chang by COB 2/20/09.
10. Pete will discuss w/ Eddie Grant and cc David Ashton, Roger Strain regarding the FHP requirements of CA005A3, CA005A4 for SSUG input. Eddy Grant will present/address the issue at the upcoming SunGuide User Group meeting
11. Pete will discuss alert types with E. Birriel regarding the Silver Alert and present in next ITS WGM. This will be coordinated through M. Fontan.
12. Trey Tillander and Terry Hensley will work out the schedule and location for the Release 4.2 RR / AVL FAT.



Change Management Board



FHP CAD Requirements

John Hope



FHP CAD - Requirements



- **SunGuide Requirement CA005A1:**

- External event alerts from FHP CAD incidents shall include the following fields from the FHP CAD incident, subject to availability in the incoming incident data:
 - FHP CAD Incident ID
 - FHP CAD Incident Type
 - FHP CAD Incident Description and Details (if provided)
 - Route Designator
 - Route Direction
 - Linear Reference, Cross Street, or Mile Marker (if provided)
 - County
 - Latitude and Longitude (if provided)
 - Incident Creation Timestamp
 - Incident Update Timestamp (if update)
 - Trooper Dispatch Timestamp (if provided)
 - Trooper Arrival Timestamp (if provided)
 - Originating RCC of the Incident
 - **Lane Blockage (if provided)**

The only change is the addition of "Lane Blockage"





FHP CAD - Requirements



- SunGuide Requirement CA005A1
 - **Vote:**



Change Management Board



SunGuide message on the DMS: Accident, Incident and Crash

David Chang



Change Management Board



SunGuide Software – Footprints Issues Review

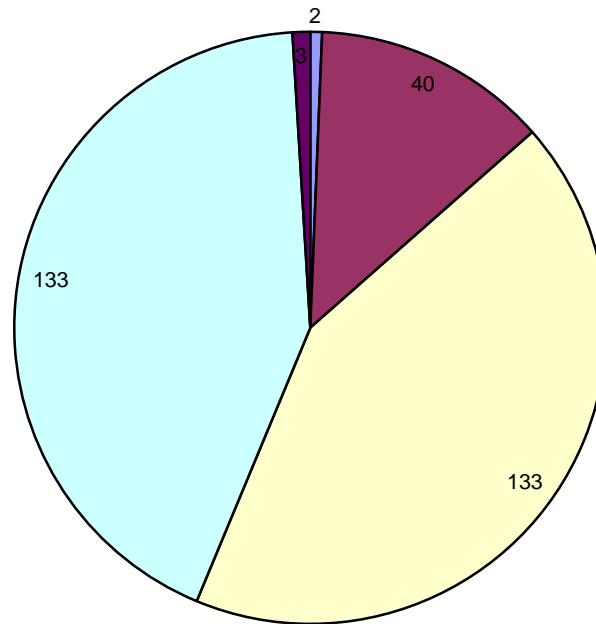
Robert Heller



Footprints Summary



Current Month Open Issues



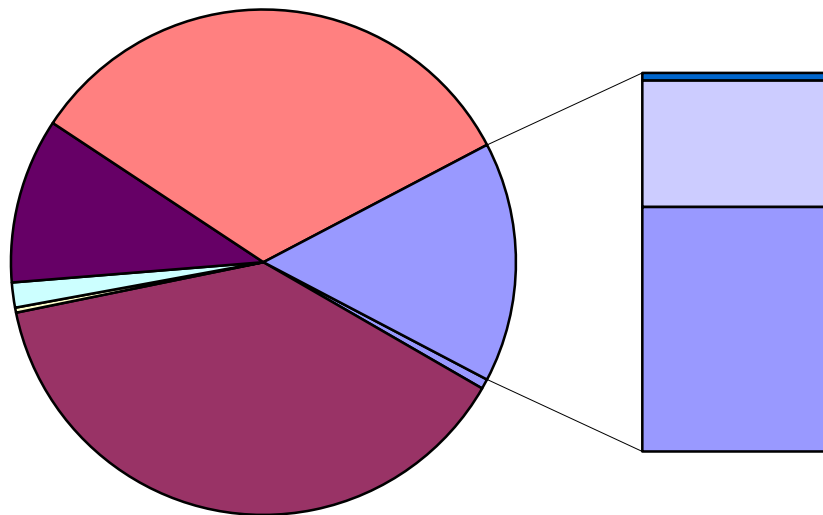
- Cumulative CF Open
- Cumulative Failures Open
- Cumulative Bugs Open
- Cumulative Enhancements Open
- Cumulative Config Open



Footprints Summary (cont)



Active Issues by Status



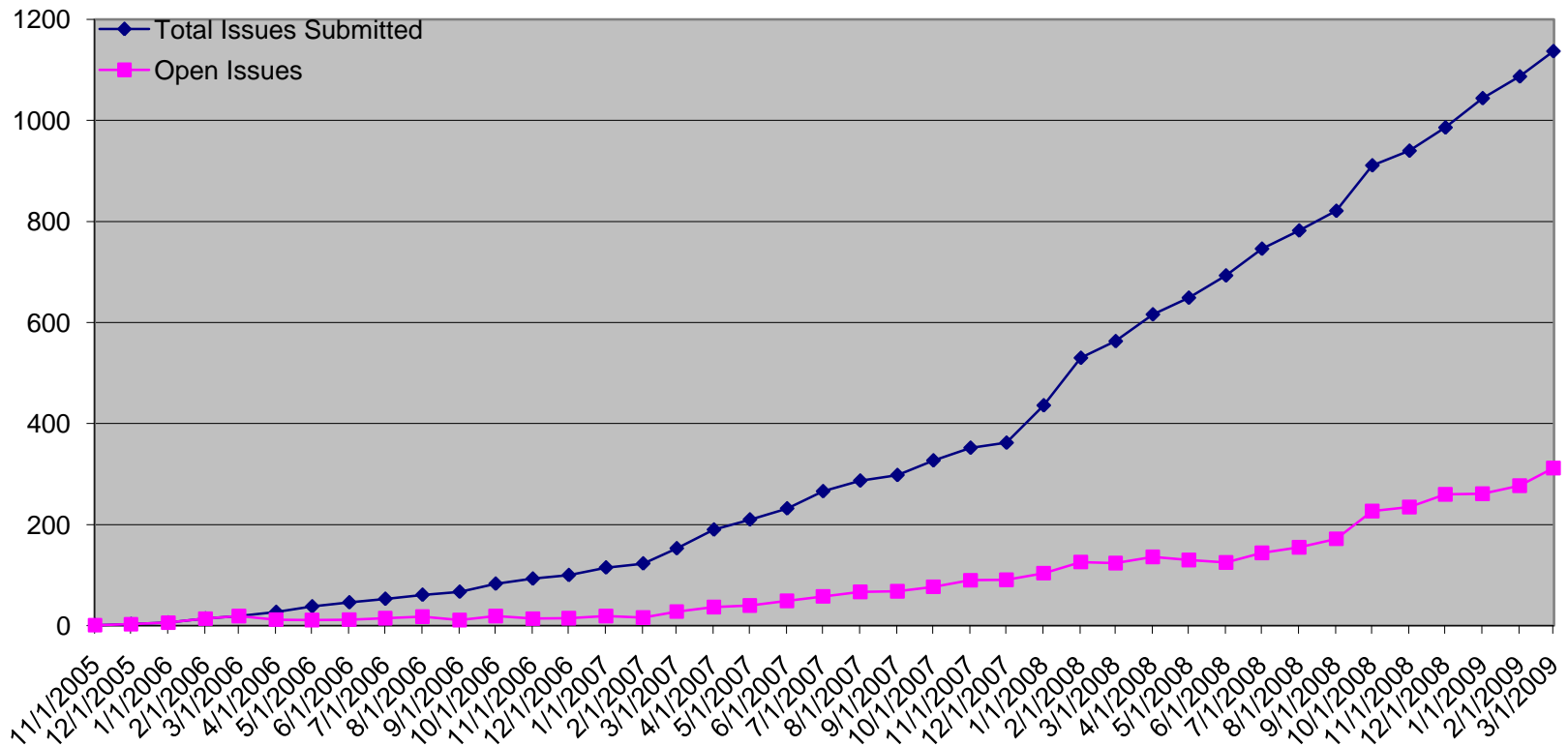
- Request
- Awaiting Release
- Could not be duplicated
- FDOT Addressing
- More Information Requested
- Needs FDOT Approval
- Issue Submitted
- SwRI Addressing
- SwRI Reviewing



Footprints Summary (cont)



All Issues

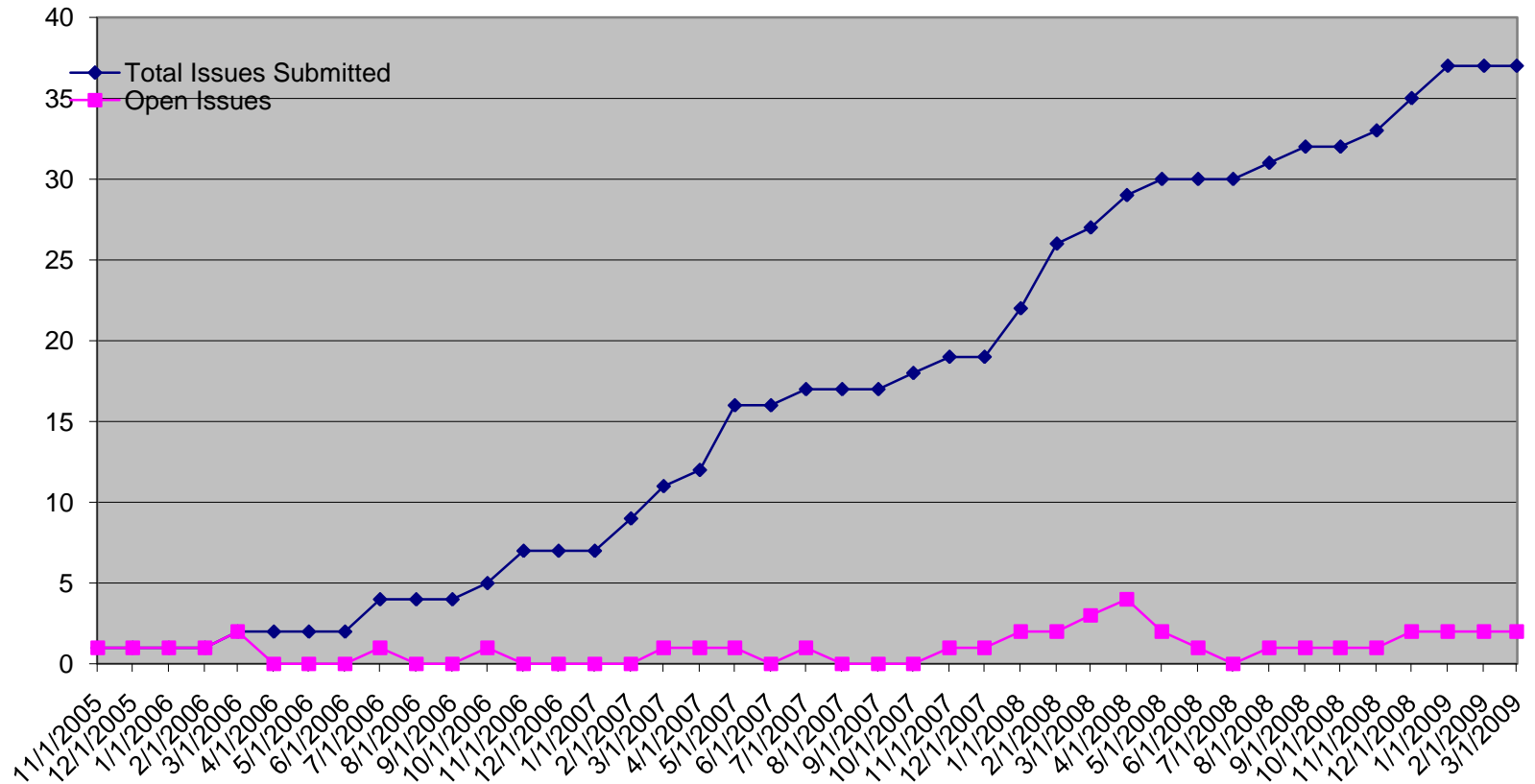




Footprints Summary (cont)



Critical Failures

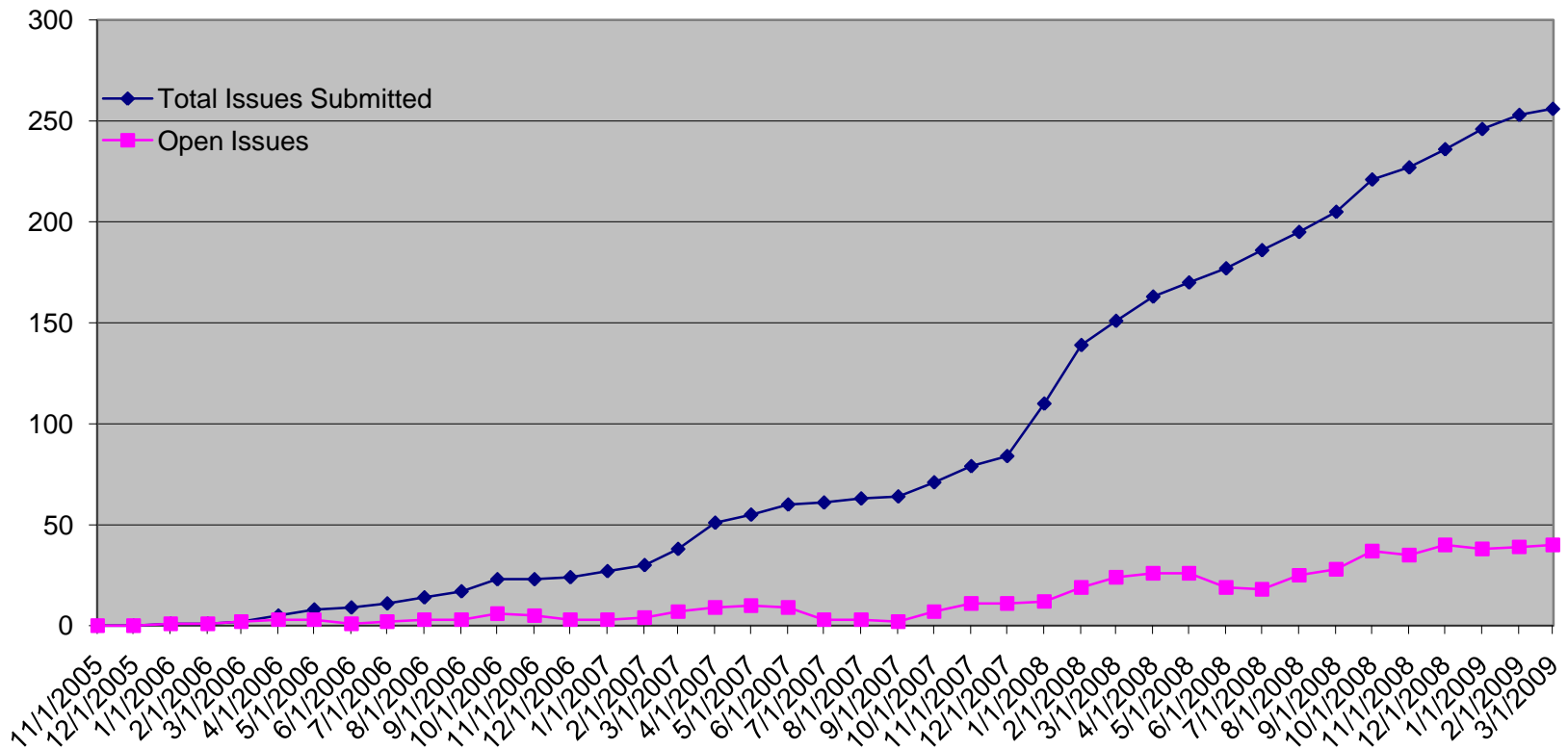




Footprints Summary (cont)



Failures

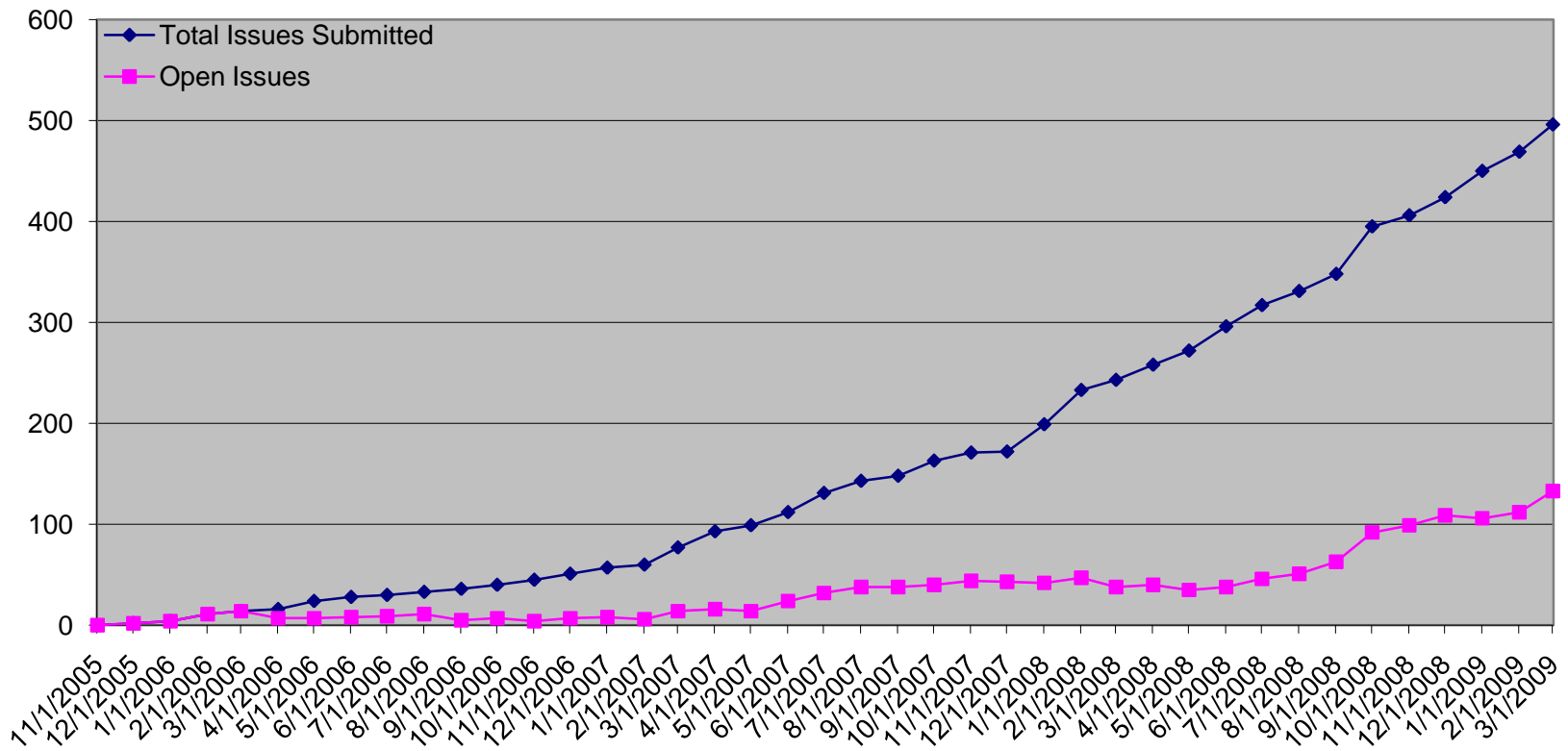




Footprints Summary (cont)



Bugs

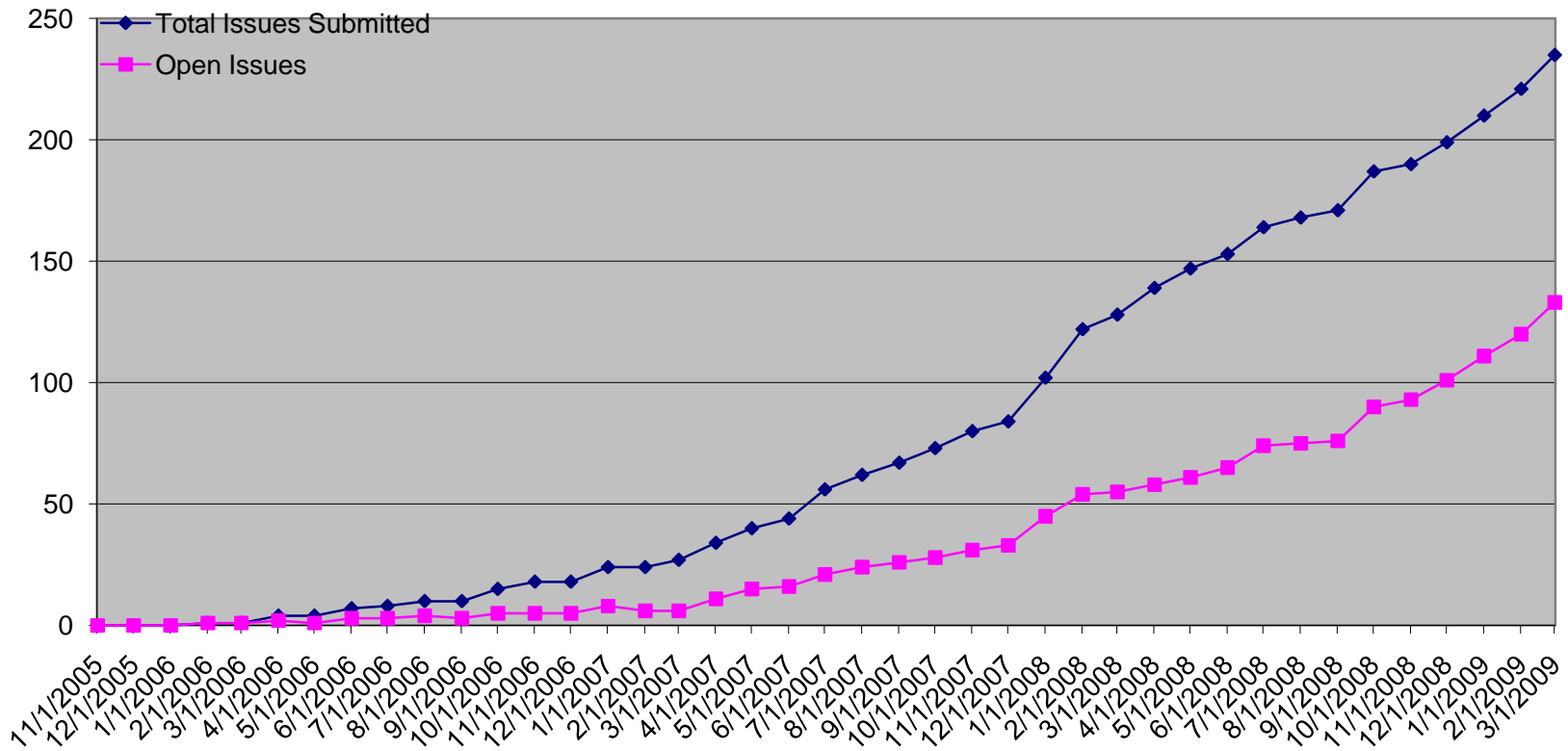




Footprints Summary (cont)



Enhancements





Footprints #1123 DMS Sequences



- **Designed and implemented to prohibit multiple “conflicting” sequences**
 - Intended to prevent operator errors
- **Introduction of message priorities**
 - Removes original design intent
 - MAS handles the conflicts
- **If two sequences are “Continue until terminated” then activation of second one is prohibited**



Footprints #1123 (continued)



DMS Sequence Editor - Windows Internet Explorer

Sequence Name: 1123.1
In Library: - Footprints#1123.1

Days of the Week to Run
Select which days this sequence should place messages on signs:
 Sun Mon Tue Wed Thu Fri Sat
All Days Weekdays Weekends No Days

Dates to Run
Select the date and time for the sequence to begin placing messages on signs:
Apr (4) - 8 - 2009 00 (Midnight) : 00 Now
Select the date after which the sequence will no longer place messages on signs:
 Continue until terminated
 Jan (1) - 1 -

Sequence Items
12:00 Test_Sign
Add New Item Edit Item Remove Item

DMS Sequence Editor - Windows Internet Explorer

Sequence Name: 1123.2
In Library: - Footprints#1123.1

Days of the Week to Run
Select which days this sequence should place messages on signs:
 Sun Mon Tue Wed Thu Fri Sat
All Days Weekdays Weekends No Days

Dates to Run
Select the date and time for the sequence to begin placing messages on signs:
Apr (4) - 8 - 2009 00 (Midnight) : 00 Now
Select the date after which the sequence will no longer place messages on signs:
 Continue until terminated
 Jan (1) - 1 -

Sequence Items
12:00 Test_Sign
Add New Item Edit Item Remove Item

Save Sequence

dms 11:15:43 - 4-8-2009
Failed to activate sequence: Sequence conflicts with: Sequence conflicts with other sequences: Footprints#1123.1\1123.1



Footprints #1123 (continued)



- **Propose to eliminate the conflict checking**
 - Eliminate deficient conflict checking
 - Minor code change with testing
 - Less than one day of effort
- **Provides more powerful feature**
 - Set up multiple sequences to run at different times
 - Manage what's displayed with priorities



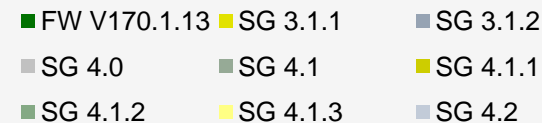
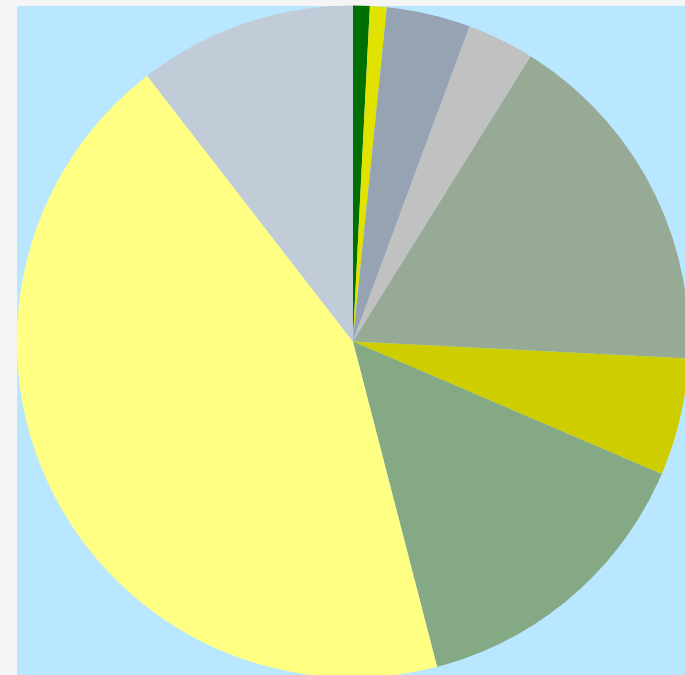
Footprints to Verify



- When issue is resolved
 - Change status to “Awaiting Release”
 - Wait for submitter to confirm

Fixed In	Count
FW V170.1.13	1
SG 3.1.1	1
SG 3.1.2	5
SG 4.0	4
SG 4.1	21
SG 4.1.1	7
SG 4.1.2	18
SG 4.1.3	54
SG 4.2	13

Count by Release





Change Management Board



Microsoft SQL Server Compatibility

Robert Heller



Microsoft SQL Server Compatibility



- **Compatible Objects**
 - Tables
 - Indexes
 - Triggers
- **Not as Compatible (major concerns)**
 - Sequences
 - PL-SQL v TRANSACT-SQL (Stored procedure limitations)



Conversion to SQL Server



- Sequences: use Identity Column
- Eliminate stored procedures
 - Reporting, Event Management, Event Auditing
 - Propose conversion to C#
 - Stored procedures have multi-threading issues
- 5 – 6 man-months for conversion



SQL Server “Advantages”



- Oracle license cost
 - Major part of annual COTS budget in TMC
 - Annual cost is prohibitive to cities and counties
- MS SQL Server
 - Multiple editions: **Standard** or Enterprise
 - Multiple license options (processor, server + CAL, etc.)
- Technical
 - Patch management
 - Native cluster, db mirror, replication



Change Management Board



Replacement of SunGuide Map

Steve Dellenback



Why Replace

- **SVG (Scalable Vector Graphics):**
 - In 2003 this was the “up and coming” drawing technology for web applications (FLASH has taken over)
 - SVG was part of the WC3 development efforts
 - SVG viewer from Adobe is at “end of life”
- **TeleAtlas data:**
 - FDOT is not going to extend its license for the base map data
- **Map quality**
 - SunGuide map has been “functional”
 - Better “eye candy” map



Replacement Issues



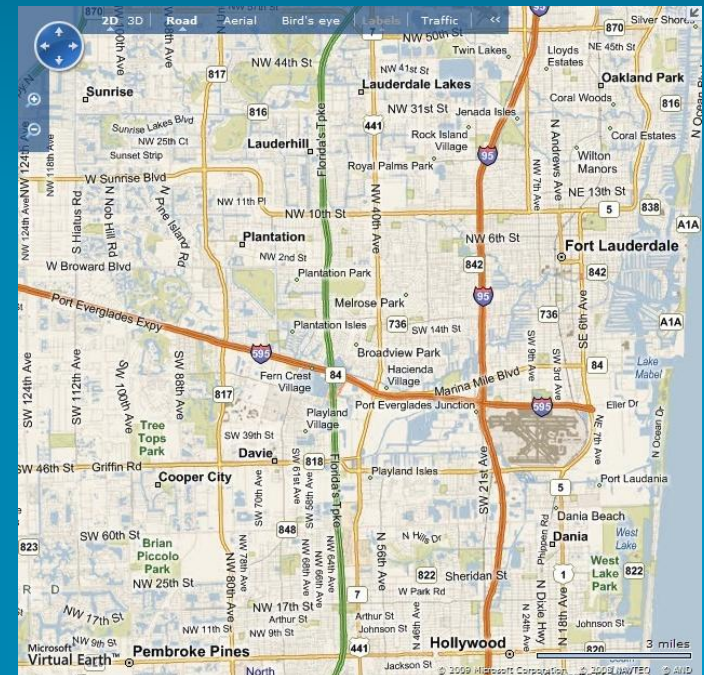
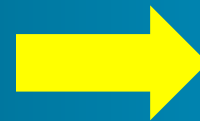
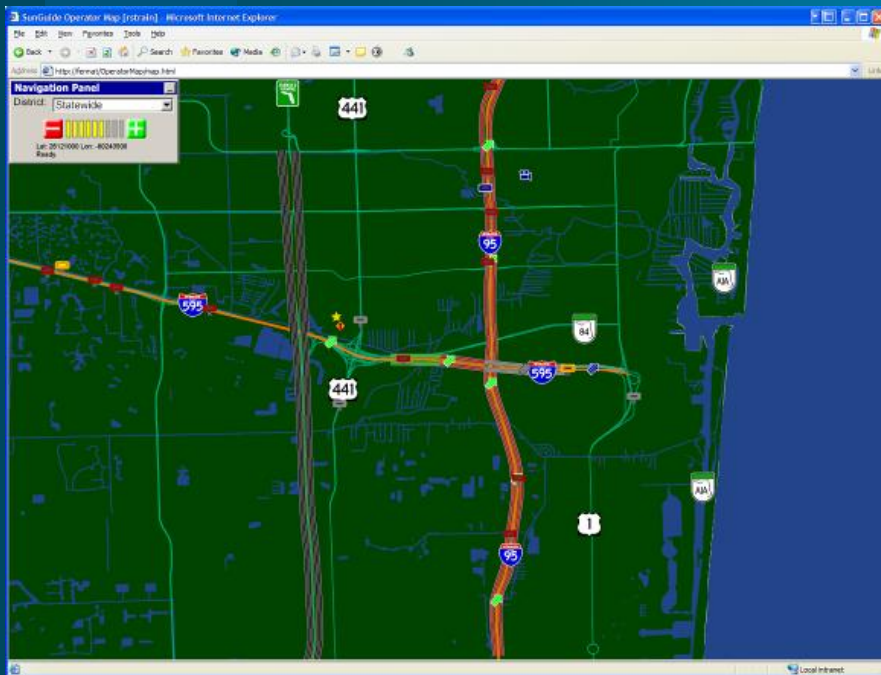
- The generally available map services (e.g. Google and Microsoft) **REQUIRE** a connection to a map source that **THEY** host to render maps
- A local map host could be established but it is very costly



Recommendation: Microsoft Virtual Earth Server



- Widely used on web sites (as is Google)
- Similar product to Google
- Visual presentation (labels and POI) is greatly enhanced
- Note: NO flexibility in editing/coloring/modifying roads





Proposed Map Features

- **General features**
 - Zoom (using control or control-scroll)
 - Pan (grab and slide)
 - Select which ITS device icons to display
- **Display ITS status:**
 - Roadway conditions (down to lane level)
 - ITS device icons
- **Enhanced features (“no-cost” features – note that the rendering of SunGuide artifacts only supported in overhead view – some license terms limit the use of these features):**
 - Satellite view
 - Birds eye view
 - 2D/3D view



Implementation Concept

- Some existing map code can be reused in large part, reducing the cost of implementing an entirely new interface.
- The map display would be a combination of two items:
 - Commercial map data (from Microsoft) which has a well defined, standard interface
 - An overlay technology will be used to actually draw device icons and roadway speed indicators, the overlay would be created using Microsoft's XNA graphics interface, then displayed over the browser.
 - Note: The two data sources will be overlaid to create a "seamless map"
- Code will be written in C# which is the faster than JavaScript for rendering (initial map load should be faster – but – map load time will be dependent on the speed of Internet connection)



Current Map Features that would be “lost”



- **Map customization features (that would be lost):**
 - **Turn on/off (by county or District):**
 - **State Roads**
 - **Local Roads**
 - **Linear Water**
 - **Bodies of Water**
 - **Ability to “color” counties differently**
 - **Alter general map colors**



SunGuide Applications to be modified



- **Following applications will need to be modified:**
 - Operator map (what most people see)
 - Link / Shield editor (the shield part will “go away”)
 - Device sequencing editor
 - Geo-fence editor
- **SVG implemented features that have to be developed:**
 - Content sensitive menus (i.e. right clicking on map and associated menus is implemented by SVG)
 - Icon colorization (implementation costs could be reduced if icon customization could be standardized)



Issue about losing TeleAtlas Data



- **Note: FDOT will continue to be able to use the last set of map data that is received**
- **In SunGuide R4.0 a “lookup” feature was implemented using the TeleAtlas data:**
 - **The coordinate lookup funding for geo-fencing is performed using TeleAtlas data (this is for the Road Ranger application – the RR sends the lat/long and this is “looked” up to see if they are within the geofence)**
 - **Existing data should be acceptable for several years**
 - **FP issue #1157 was opened to track this issue**



Recommended Approach

- **Refine map requirements:**
 - 2 weeks
 - Estimated cost: \$8,262
- **Implement map (ROM subject to change until requirements are finalized):**
 - 5 months
 - Estimated cost: \$146,732
- **Backup map:**
 - SwRI recommends that the current map is kept as a “backup” in the event Internet connectivity is lost (we have seen this occur frequently in some Districts)
 - If desired by FDOT, we will need to evaluate a mechanism to implement (i.e. if the Internet is not ‘detected’ should the map switch?) The effort to do this is TBD.



Change Management Board



Closing and Action Item Review

Peter Vega