

SunGuide Software

User’s Group

Meeting Minutes

**Date: September 24, 2020**

**Time: 2:30-3:30 EST**

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| Agenda: |  |
| Topic | **Led By:** |
| Item 1: 5403 – Adding Coordinate Data to Select SunGuide Reports  Item 2: 5410 – Executive Notification Functionality  Item 3: 3562: TSS Probe Fusion Functionality Questions | Luis Hernandez  Tucker Brown  Tucker Brown |

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| Attendees: |  |
| Robbie Brown, D1  Justin Merritt, D1  Tom Arsenault, D1  Chrissie Collins, D1  Ray Mikol, D1  Luis Hernandez, D1  Margret Treiber, D1  Jason Evans, D2  Jason Summerfield, D2  Tanesha Sibley, D2  Greg Reynolds, D3  Amy DiRusso, D3  Kevin Mehaffy, D3  Jacques Dupuy, D4  Dee McTague, D4  Simon Cooke, D4 (I-595)  Shannon Watterson, D5  Kyle Higgins, D5  Eddie Grant, D5  Jovanny Varela, D5  John Hope, D5 | Sheryl Bradley, D5  Mark Laird, D6  Jared Roso, D7  Daniel Buidens, D7  Mike Crawson, D7  Matt Mileto, D7  Jermaine Da Silva, FTE  Michael Kerpen, FTE  Umesh Subramanayam, FTE  Tony Abid, FTE  Kelley Kinney, FTE  Cherie Phillips, FTE  Brent Poole, CFX  Tucker Brown, SwRI  AJ Skillern, SwRI  Christine Shafik, CO  Derek Vollmer, CO  Fred Heery, CO  Mark Dunthorn, CO  Gregory Dudley, CO  Hitesh Chawla, CO  Jennifer Langford, CO |

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| Discussion: |  |

Christine Shafik: Good afternoon everyone. Thank you for joining us today in the SSUG meeting.

Alright, I think we have a full house today. We can start the presentation. I know the first item is going to be presented by District One so I will turn it over to Luis.

**Item 1: 5403 Adding Coordinate Data to Select SunGuide Reports**

Luis Hernandez: District 1 is looking at a possibility of adding coordinate data to select SunGuide Reports. Some of the challenges is that SunGuide stores coordinate data but that data is not available through any of the current SunGuide Reports. The coordinate data that is there is stored without a decimal between the degree and fraction of degree values. This is not compatible with ArcGIS and would need to be manually manipulated if the report cannot produce a decimal. What we are proposing is to add a selectable feature within SunGuide event management reports that allows the user to append coordinates to the report. Initially starting with the Event List Report. We would also try to incorporate the change into other reports that would be fitting. The X and Y values (latitude and longitude) would need to populate separate in the columns and apart from the reference location. We are hoping this will allow for data integration into GIS applications. Below is a screenshot of a mockup of what it would look like with the coordinates appended.

Christine Shafik: Thank you, Luis. Let’s open the floor for questions and discussion.

Kevin Mehaffy: We recently did this using a script and a program called Python and decrypted the location. If we are doing this for GIS purposes, we will probably want to add extra columns as well like direction and county. It will make it easier to integrate into GIS.

Tucker Brown: So, it might also be helpful to go with a list of reports you would like this in or if there is a location in it there is an option to display latitude and longitude in degrees.

Luis Hernandez: Tucker, right now, we are only looking at the event list report.

Mark Laird: Is that selection considered to be an option on the filter page?

Luis Hernandez: We would be looking for it to be selectable so the event list could be run without it.

Christine Shafik: So, let me ask which District would be interested in this enhancement?

Dee McTague: District 4 would be. We already sent our report to GIS and it didn’t have the decimals so they must have something they run on it to add the decimals.

Mark Laird: Yeah, it would be interesting to have in District 6.

Dan Buidens: District 7 is interested.

Kevin Mehaffy: District 3 is definitely interested.

District 5 RTMC: District 5 agrees.

Brent Poole: CFX agrees.

Christine Shafik: Alright, sold! Next up we have Tucker presenting on the Executive Notification Functionality.

**Item 2: 5410 Executive Notification Functionality**

Tucker Brown: Alright, so the current behavior of this is the operator who owns the event is the one who gets the notification of events that should get a new or updated Executive Notification. The point of pulling it out of the email part that we use is that the UI enforces consistency in the format of the email and allows attachments. There are permissions in the system. So, if users don’t have permission to send the email, authorization from a user with permission can be granted. The system will look for the next person who has the ability to send one and is logged in. You can have permission to generate but not send it out.

One of the concerns that was brought up is the user who owns the event gets the Executive Notification. The problem that was brought up is operators do not send executive notifications so management through SunGuide may require unnecessary event ownership changes.

So, a way to fix this, and one that we kind of brainstormed internally, is right now if the user who has the event and they have permission, it will only be sent to them. It will broadcast it to users who have permissions to edit. That will widen the distribution and who will be able to edit it. It was brought up that even if the event owner has permission, that they would be excluded from that list because they wouldn’t be doing it anyway. The other thing to do is edit the permissions to only people capable of sending executive notifications. The potential issue is that two users trying to generate and send the executive notifications at the same. Through discussions with the Districts, they said it probably won’t be a problem.

Christine Shafik: So, Tucker, let’s cover each concern at a time then move to the next after we discuss.

Tucker Brown: I will open it up for discussion. This deals with who should be getting the notification and how they should get it. The one option we had was to widen the distribution list.

Mark Laird: This is going to be sent out through SunGuide, right?

Tucker Brown: Yes, this solution would require that the person getting it would have to be logged into SunGuide.

Mark Laird: So, it seems like SunGuide would be able to ensure only one notification would go out.

Tucker Brown: Yeah, we can mitigate stuff like this, but it doesn’t prevent users spending time generating it. I am less concerned about two of them being sent out, I am more concerned about two people taking the time to generate the same thing when only one will be sent out.

Dee McTague: So, my question is we don’t have a problem of people fighting over who is sending it out. If this is going to create a pop-up for anyone who is signed into SunGuide permission to send executive notifications, is it going to be able to be done outside of the ownership of the event?

Tucker Brown: Correct.

Dee McTague: So, it won’t require that you take ownership of the event, you should just be able to do it.

Tucker Brown: Correct.

Jason Evans: When you are generating these emails and sending them out, is there somewhere is SunGuide where it is saying it to do this? Or is there a list where we would go in and edit who we want?

Tucker Brown: When you talk about the email, you’re talking about when you finish this, and you are out completely?

Jason Evans: Yes.

Tucker Brown: I believe that is in the template and it is configurable.

Jason Evans: So, there is a way to configure who gets it and who doesn’t. Are the Central Office folks who get the notifications hardcoded on there or do we need to add them to our list as well?

AJ Skillern: Well, the list of recipients isn’t in the template, it’s in the config file. Before 7.2 it would be sent to an internal email list and forwarded to any FDOT executive management folks. You could still do that using this implementation and put them in the config file to make them part of the default list of recipients.

Jason Evans: Okay, that is what I wanted to know. Thanks.

Luis Hernandez: Is there an opportunity for a privileged user to just go in and check an executive notification that’s been made without it having to pop up?

Tucker Brown: Do you mean after its been sent?

Luis Hernandez: No, prior to sending the initial, if a privileged user could go in and review it prior to sending it?

Tucker Brown: A user is going to create it and that is one permission. If you limit the sending permission group to people you trust to review before it goes out, the person generating it requests approval of that ability to send. So yes, there is the ability to make them review it before it goes out.

Luis Hernandez: Excellent. Thank you.

Kelley Kinney: I would just ask that we do not exclude the event owner from the pop up. The only person sending out the executive is the person who owns the event.

Tucker Brown: Okay. Yeah, that’s fine.

District 5 RTMC: Yeah, District 5 agrees with Kelley on this one.

Tucker Brown: Preferably I would like to bring that up for everyone.

Alex Mirones: Can we make that configurable? We would never have the user that is creating the event send it out. That would not work for us. It seems like it would be something we could configure.

Tucker Brown:

Dee McTague: Based on our use so far, the way this works is if someone does not have permission, it would redirect it to someone who does by going into a drop-down list. The list only shows the people currently logged into SunGuide and who have the permissions. The operator might close out and it would be lost.

Tucker Brown: The change here would be to get rid of that entire pop up and as soon as its available to be created it would be broadcast to everyone that would be in that list.

Derek Vollmer: Thanks, Dee for explaining that. That is the missing piece of the issue that the operator might close, and it disappears and gets forgotten.

Dee McTague: During the day when there are a lot of us here, we know what is going on. But it might not be obvious when you just have a shift manager, that it might get lost.

Justin Merritt: It sound like to me, that you can add anyone to approve it or if you want specific people, you just them so it seems customizable.

Tucker Brown: The current behavior, the person who owns the event, if they have permission, they are the only ones that get it. If they don’t have permission, then they would select someone who does. I think that is where some Districts are having issues because they need a broader distribution.

Justin Merritt: I thought you were saying it would streamline the process by automatically going to the priority, so you don’t have to select who it is.

Tucker Brown: Correct, and that’s the proposed change here.

Justin Merritt: Sounds good.

Christine Shafik: Do we have an agreement on the proposed change here?

Mark Laird: Is the configurability to block the event owner included?

Tucker Brown: Yes, that is doable, we would make it a configuration item.

Derek Vollmer: Wouldn’t you just not have them have the permission in the first place?

Mark Laird: Yeah, they would have permission.

Derek Vollmer: They would have permission when they are on shift, they have a different role or something?

Mark Laird: Either that or they aren’t the owner of the event and they handle it.

Derek Vollmer: Oh okay, got it. Thanks, Mark.

Dee McTague: That sounds like it should address my concerns.

Jason Evans: District 2 agrees.

Christine Shafik: Any objections from other districts? Hearing none, we will move on.

Tucker Brown: The next concern is missing or ignoring the prompt may result in no executive notification being sent. We discussed one example earlier when the operator is doing something, and they ignore the pop up and nothing gets sent out. There was another example brought where the operator enters a crash with right lane blocked. Enters an executive notification comment in error and dismisses. As the event progresses it is updated to a S7 in an active work zone – no executive notification pops up.

So, there are a couple of options here.

Option 1: Every time a notification criterion is reached, send a new notification regardless of timing. This will probably generate more executive notifications.

Option 2: Introduce an option to “dismiss as false alarm” that will reset all timers so the next executive notification criteria that is met will just be like the 1st.

Dee McTague: I am going to throw out that executive notifications are not just updated based on time. They are also changed based on changes and circumstances. So, what would best address that? I think if something changes in the event then another executive notification should be sent.

Derek Vollmer: Glad you brought that up, Dee. I thought there were some criteria that would cause an update to pop up prior to the two-hour window like a full closure and having a travel lane open.

Tucker Brown: There are, I believe, some that might cause that like moving from a partial lane blockage to a full lane blockage.

AJ Skillern: Yeah, so, right now, the triggers are a full closure going to a partial, lanes cleared or the two hours.

Tucker Brown: So, if you have a criterion and if something changes that isn’t a trigger it would not send another pop up to update it.

AJ Skillern: Yes.

Derek Vollmer: I will go back to Dee. Are you looking to have some of these other triggers basically create another notification?

Dee McTague: No, not necessarily. My concern is that the operator ignores it because it was generated in error. I am fine with whichever one is going to solve that problem.

Derek Vollmer: It looks like it is between option 1 and 2 here.

Tucker Brown: So, I was thinking does the widening of the distribution help with the problem of someone ignoring it?

Dee McTague: Oh yeah, absolutely.

Tucker Brown: Okay, so if that problem is handled by that then we are looking into one generated in error. If that is the case, then I would look at option 2.

Derek Vollmer: Yeah, I like that. I would go with Option 2 as well.

Christine Shafik: Unless there are any concerns, I think we have a plan for this one.

Tucker Brown: The next one is potentially a bug. Recent issue reported by supervisor. When the operator with ownership of the event selected the Executive Notification comment type, the email notification window is generated. However, when the automatic update is generated in the event chronology, no email notification window appears for the operator with ownership of the event or other users currently logged into SunGuide.

Dee McTague: No, no, they had initiated an executive notification via the comment type but then when it was time for the automatic update, no window popped up and the time had passed so what you are saying is right, it is most likely a bug.

Tucker Brown: Alright, so all of these were in one JIRA issue, so we are going to pull them out to track separately. Again, I think part of this will help because it only goes to single operator so we would get rid of the single point of failure here.

And then there were a couple of bullet points as part of this issue that were put in as well:

* Selecting WWD in a crash does not launch the EN window
  + Potential bug
* Duration of closure is not automatically calculated in email
  + Issue reported by D1 as well. Resolved as part of 5159 and pending release
* Injuries and fatality are not populated in the template
  + Currently by design

AJ Skillern: Yeah, basically, in 7.2, we modified the way the injury types were configured to go beyond identifying if an injury type contains fatalities. The reason we intentionally don’t populate the fields is there is no way to distinguish between an injury and fatality. If we made a fatality field, we wouldn’t know if we should also populate the injury field. We could change the fields so they would populate injury vs fatality.

Tucker Brown: So, we are open to basically, anybody letting us know how they would like to see it in there.

Dee McTague: The more it is automated, the better and accurate and consistent the notifications are going to be.

John Hope: AJ, are you asking if there should be a relationship between fatality and injury?

AJ Skillern: Right now, SunGuide has a single field for marking injury or fatality on an event. We can’t distinguish if the injury type selected has a fatality or not. How do you want us to populate those fields through an automated process if there is a fatality or not? If it’s a fatality would you want us to populate fatality and leave injury blank or would you want us to populate both?

Jason Evans: Well, one issue here is current executive template requires you to list the number for fatalities. There is no way to put that number into SunGuide only list the injury. So, to automate it you would have to add a number function. But if you are asking about injury vs fatality, if we have a fatality then we have no injuries.

AJ Skillern: I don’t know how each District configures injuries. If we have an injury type marked as a fatality type, what do we populate?

Jason Evans: So, we would have to split that up within the SunGuide event and give fatalities and a number and injuries and a number.

AJ Skillern: The one thing I recall, and Derek correct me if I am wrong, when we did the upgrades to 7.2, we didn’t want to explicitly add numbers to fatalities.

Derek Vollmer: I remember having conversations with the Districts and it was because it was difficult to determine what the number was going to be.

Dee McTague: You can drop that from the ticket. It is not that big of a point. You can drop it from our JIRA ticket.

Kelley Kinney: Maybe a compromise is that we add the word unknown to the injury and fatalities and then when the operator has that number, they update it.

Jason Evans: That’s how we do it now, we would put unknown.

Luis Hernandez: Yeah, District 1 would prefer to manually update for now.

AJ Skillern: We could change the template default to say unknown for both of those.

Dee McTague: It is blank by default.

AJ Skillern: We could change the templates so by default it says unknown then you can manually update it.

Christine Shafik: I guess we can move on. That was the last part of the executive notifications.

Tucker Brown: Okay, before we move on does anyone have anything else, they want to add for executive notifications before we move on?

Ray Mikol: We have an issue clearing highlighted fields in the email. When you try to clear the highlight and hit preview the selected area turns black.

Tucker Brown: Would you mind putting that issue on JIRA and list the steps you took?

Ray Mikol: Absolutely.

Tucker Brown: Okay.

**Item 3: 3562 TSS Probe Fusion Functionality Questions**

Tucker Brown: So, going on the next one, we have discussed this a couple of times before and at the last SSUG. This has to do with TSS probe fusion functionality questions and how they are matched together.

So, at the last one, we talked about adding a minimum speed parameter. So, I said I would go back and come up with some examples. The problem is that some of them need to be filtered out because they don’t make sense. Or there might be low speeds and you do need do a pole cycle to gather speeds and show how they generate those speeds.

So, a couple of terms I am going to use here are:

* Tag horizon – the amount of time before a pair is removed from being able to be used.
* Sample size – Minimum number of matches needed to produce a valid speed.
* Delta speed threshold – Amount the speed can differ from the current average before being excluded from the current calculations.
* Anomaly Speed – Max speed possible to include.

There are three match sets that are held within the profusion driver. The unfiltered match – lists all matches seen by the system, regardless of filter criteria. If it is over the max speed it gets discarded. There is the context of the filtered match list where when we pair these together the list of matches seen by the system after filtering tags for anomaly speed, tag horizon, and delta speed threshold. The filtered match list is used to create for the link itself. The there is the historical matches list where the list used to pull extra matches from to meet the minimum sample size.

So, I have put some example parameters here our sample size should be 10 and the delta speed should be 20

Alright, so the first poll cycle most of them are between 40 and 55 and the average is 50. There are no issues with this.

The second poll cycle I get similar numbers except there is one number that is extremely slow. Notice there are 8 values here total, so the unfiltered list pulls two values from the previous list. From the filtered list only seven of the values were good. So now we are holding two averages here, one the average that was sent and the unfiltered average.

So, now we see the speed drop in the third example. The speeds outside of the delta speed range are not included in this average. So, the new average is 49 and the unfiltered average is 36.

The current design allows for the exclusion of the data that is not within a configurable interval while also allowing that data to be used in future cycles if shown to be valid. The design does not react as quickly to sudden changes but does make the data output smoother. Is the minimum speed parameter needed?

John Hope: I believe I was the one that submitted this ticket. When I submitted the ticket, it was a question of fusion functions but since you have done this analysis and answered my question of what is going on in the fusion. As long as the anomalies are filtered out, I think it addresses our concern.

Tucker Brown: Okay, and there is still an enhancement pending on this. It was more the question of if we needed the speed. If you’re okay with that we can take that part out and continue with what we discussed last week.

John Hope: Sure, unless anybody else has any thoughts.

Tucker Brown: Hearing none, I think that was the last one for today.

Christine Shafik: Perfect on time. Thank you all for all the discussion. We will have announcements on the SunGuide version support at the next SSUG.