



### SunGuide Software User Group Meeting

Thursday, October 26, 2017

Audio: 1 (312) 757-3121,

Access Code 562-478-565

**Call is Being Recorded** Do NOT Put On Hold

GoToMeeting:

https://global.gotomeeting.com/join/562478565 **SSUG** 

10/26/2017





## DMS Configuration Improvements Part 2

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#### Recap



- District 5 footprint to manage fonts
- Defaults or changes to fonts on the sign can have negative impacts on message legibility.
- No communication between the SunGuide software and DMS concerning fonts.
- Can retrieve font characteristics from signs and manage the first four font slots

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#### CORRECT FONT SIZE

14×10 FONT SIZE







#### ITS WG Meeting

- Presented Standardized fonts on 10/17/2017
- No one commented about being interested
- Proceed with solutions that don't involve standardized fonts
- Can be added later if needed

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- Retrieve first 4 font slots on DMS and default font object
- Store only unique fonts with a mapping to each sign's font table
  - Includes character bitmaps
- Will not have ability to view character bitmap
- Character "exception" size configuration remains for non-NTCIP signs
- Includes ability to retrieve and set the default font (NTCIP object)





- Retrieve configuration from sign
  - Report or show difference between SunGuide config and what was retrieved
    - Help show planned or unplanned font changes
    - If character bitmap changed, can report this change rather than show it.
  - Ability to update config in SunGuide or download SunGuide config to DMS
- Store configuration to sign
  - Ability to send current SunGuide DMS configuration to the sign
  - After sent, retrieve for verification





- SunGuide DMS polls will get font information including version ID
- Check if different than SunGuide configuration
  - Produce an alert (e-mail to administrator) that a configuration difference was detected
  - An approved user can either retrieve and store the new configuration or change it to what is currently in the SunGuide software
  - We will not automatically restore or download fonts to a sign





- TVT Templates are device specific
  - Could specify the font, default to using the default font for the sign
- EM templates can be device specific, but there is also a default template
  - If default template is used, then Default font must be used.
- Templates that are device specific can allow font selection otherwise the default font defined on the sign will be used.
- This allows us to always send the font number and ID with each message.

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- Create external tool to retrieve all NTCIP DMS font configuration values prior to performing the SunGuide software upgrade
- The tool allows someone to verify the font configuration values.
- The output of this tool is used during the upgrade process to store the new font configurations into the SunGuide database
- When SunGuide comes online after the upgrade, the font configuration is ready for use.



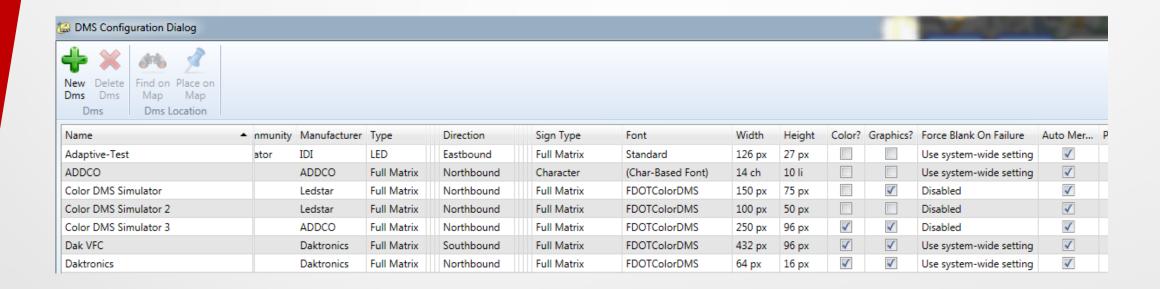


#### Recovery Messages

- Looking at NTCIP 1203v02 also in v03
  - Power/comm loss recovery messages have a default value of "Blank"
  - These could be changed during device testing and need to be changed afterwards
  - How many Districts have experienced a "strange" message appearing on their signs that could be related to these recovery messages?











#### **NTCIP** Object

- dmsGraphicMaxEntries
- dmsColorScheme
- dmsSignType
- dmsSignTechnology
- vmsSignHeightPixels
- vmsSignWidthPixels

#### SunGuide Config

- Graphics? Checkbox
- Color? Checkbox
- Sign Type
- Type
- Height
- Width





- If dmsGraphicMaxEntries is greater than 0, the sign supports graphics
- dmsColorScheme = color24 means the sign is full color
- dmsSignType vms and portable options can both map to Char,
   Line, or Full matrix





- dmsSignTechnology has options like LED, Flip Disk
  - Options can map to type column in SunGuide
- For full matrix signs, vmsSignHeightPixels and vmsSignWidthPixels will give us the sign dimensions
- Could keep width and height manual for character and line matrix signs.
  - Possibly use vmsSignHeightPixels, vmsSignWidthPixels in combination with vmsCharacter HeightPixels and vmsCharacterWidthPixels to calculate height and width in SunGuide





- These are all read only objects
- Allow users to manually change the SunGuide configuration values if needed
  - Sign configuration could be wrong on the sign.
  - We did check these on signs at the TERL
  - Doesn't guarantee they will be right in the field





#### **DMS** Configuration

- Will add this to the external tool as well
- Values can be verified before the SunGuide software upgrade
- If the sign reports incorrect values, these can hopefully be resolved before the upgrade
  - There should be a way to configure sign dimensions using vendor software or manually inputting information via the DMS controller
- Alert if a difference is detected?





## Discussion





# Connected Vehicle Protocol update





- Currently support an older version SAE J2735-2009-11
- Update this to the new standard SAE J2735-2016-03
- Will not cause changes at the GUI level and will keep existing functionality
- Can include in 7.1.2





## Discussion