



SunGuide Software User Group Meeting

Thursday, October 26, 2017

Audio: 1 (312) 757-3121 ,

Access Code 562-478-565

Do NOT Put On Hold Call is Being Recorded

GoToMeeting:

<https://global.gotomeeting.com/join/562478565>



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



**CORRECT
FONT
SIZE**

**14x10
FONT
SIZE**

**7x5
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

Font Management Proposal

- 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)

Font Management Proposal

- 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

Font Management Proposal

- 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

Font Management Proposal

- 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.

Font Management Proposal

- 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?

Other DMS Configuration

DMS Configuration Dialog

Name	Community	Manufacturer	Type	Direction	Sign Type	Font	Width	Height	Color?	Graphics?	Force Blank On Failure	Auto Mer...	P
Adaptive-Test	ator	IDI	LED	Eastbound	Full Matrix	Standard	126 px	27 px	<input type="checkbox"/>	<input type="checkbox"/>	Use system-wide setting	<input checked="" type="checkbox"/>	
ADDCO		ADDCO	Full Matrix	Northbound	Character	(Char-Based Font)	14 ch	10 li	<input type="checkbox"/>	<input type="checkbox"/>	Use system-wide setting	<input checked="" type="checkbox"/>	
Color DMS Simulator		Ledstar	Full Matrix	Northbound	Full Matrix	FDOTColorDMS	150 px	75 px	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Disabled	<input checked="" type="checkbox"/>	
Color DMS Simulator 2		Ledstar	Full Matrix	Northbound	Full Matrix	FDOTColorDMS	100 px	50 px	<input type="checkbox"/>	<input type="checkbox"/>	Disabled	<input checked="" type="checkbox"/>	
Color DMS Simulator 3		ADDCO	Full Matrix	Northbound	Full Matrix	FDOTColorDMS	250 px	96 px	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Disabled	<input checked="" type="checkbox"/>	
Dak VFC		Daktronics	Full Matrix	Southbound	Full Matrix	FDOTColorDMS	432 px	96 px	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Use system-wide setting	<input checked="" type="checkbox"/>	
Daktronics		Daktronics	Full Matrix	Northbound	Full Matrix	FDOTColorDMS	64 px	16 px	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Use system-wide setting	<input checked="" type="checkbox"/>	

Other DMS Configuration

NTCIP Object

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

SunGuide Config

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

Other DMS Configuration

- 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

Other DMS Configuration

- 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 vmsCharacterHeightPixels and vmsCharacterWidthPixels to calculate height and width in SunGuide

Other DMS Configuration

- 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