



Vanguard Professional**Version:** 4.33.2**Release Date:** 11 November 2024**Features**

1. NJTA updates:
 - a. Quick Message Selection - Corrected the problem with the left sign of a Type-1 sign pair needing to be selected first when trying to post a quick message on both signs.
 - b. Interstate 695 Message Preview Images - Added new message preview images to the message Control tab screen for the addition of the new I-695 interstate shield.
 - c. Type-2 Drum Layout Diagram - Corrected the drum layout diagram that appears in the Drum Diagnostics box for Type-2 signs.
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Vanguard Professional**Version:** 4.33.1**Release Date:** 31 January 2024**Features**

1. NJTA updates for offline sign task begin and ignored fix for get/set.
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Vanguard Professional**Version:** 4.33.0**Release Date:** 12 January 2024**Features**

1. NJTA updates: Message 7 Addition - Added the ability to select and post a blank drum face message on all signs.
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Release Date: 21 July 2022**Vanguard Professional****Version:** 4.30.0**Features**

1. Update event log source's file path for event message file.
 2. NJTA updates for types with no message 6.
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Release Date: 10 January 2022**Vanguard Professional** **Version:** 4.29.0**Features**

1. NJTA updates for type 1 with Message 6.
2. Improved folder path handling for manufacturer specific graphics previews.

Release Date:29 November 2021

Vanguard Professional

Version: 4.28.2

Features

1. Increased robustness with scheduled scenarios for situations when database accessed.
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1 October 2021

Vanguard Professional

Version: 4.28.1

Release Date:

Fixes

1. Status changes stop updating in main list view after closing a client add-in window.
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Release Date: 2 August 2021

Vanguard Professional

Version: 4.28.0

Features

1. Server support for additional HCMS types (hybrid displays).
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Release Date: 21 October 2022

Vanguard Professional

Version: 4.28.3

Fixes

1. Increased connect timeout to SQL Server during installation.
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Vanguard Professional

Version: 4.27.5

Release Date: 15 April 2021

Vanguard Professional

Version: 4.27.6

Release Date: 2 August 2021

Fixes

1. Client sometimes experienced performance issues or high CPU usage when first loading or during frequent updates.
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Fixes

1. Server events in certain environments could cause exhaustion of the application's thread pool.
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Vanguard Professional**Version:** 4.27.4**Release Date:** 2 April 2021**Features**

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1. Added Daktronics RTD support

Fixes

1. Message preview now includes graphics from slots 1-255; previously only used graphics in slots 1-50.

Vanguard Professional**Version:** 4.27.3**Release Date:** 25 June 2020**Fixes**

1. Removed LEADTOOLS from Content Studio.

Vanguard Professional**Version:** 4.27.2**Release Date:** 15 November 2019

NOTE: Content Studio is no longer supported on Windows 8 and Windows Server 2012

Features

1. Updates to Content Studio Text Template functionality to support changes made in the Travel Time Add-In 4.11.1

Vanguard Professional**Version:** 4.27.1**Release Date:** 19 August 2019**Fixes**

1. Error opening Content Studio on remote client computers. Issue occurred only with 4.27.0 client install.

Vanguard Professional**Version:** 4.27.0**Release Date:** 30 November 2018

NOTE: Microsoft .NET Framework 4.7.1 will install as a prerequisite, previously was Microsoft .NET Framework 4.5.

NOTE: If Travel Time or Text Template Schedule Generation add-in is used, please contact Daktronics for a required update.

Features

1. Support for Unicode text by uploading a TrueType font to Daktronics VFC and use of Daktronics custom font tag. ○ Example:

[pt30o0][j|3][jp3][ms11,fo,74px Arial][cf7]م طري ق البناء إلى الأما



This feature requires firmware version 8.10.0 or newer and Character Set option of UTF-8 on controller.



- Support for sending compressed graphics (PNG) to Daktronics VFC.
 - Smaller PNG is chosen over NTCIP graphic only if daktNumSigns is enabled in profile's MIB and graphic is larger than 38,399 pixels and message is sent to non-volatile memory.

Database

This applies only for advanced deployment where database is managed by end user's IT staff. If Windows authentication is used for connecting to SQL Server, any upgrade from 4.26 or older will require re-entering credentials on the Windows service named Daktronics Nucleus Server.

Vanguard Professional

Version: 4.26.1

Release Date: 19 September 2018

Features

- New font for VFC.

Font Name	Height (inches)	Height (pixels)	Ave Width (pixels)	Stroke (pixels)	Char Spacing (pixels)	Line Spacing (pixels)
29x19_4	18" @ 16 mm	29	19	4	6	12

- Ability to delete an entry within a Server High Availability Group. Typical use case is for a decommissioned computer.

Fixes

- Message previewer in Quick Message and Content Studio supports up to 30 fonts (previously error if more than 20).

- Setting brightness configuration within Display Control Panel will correctly show the updated configuration.
- Recurrent “communication aborted” errors in certain situations after switching the server from passive to active.
- Prevent server crash when generating thumbnail for a message containing PNG image (new VFC feature in 4.27.0).

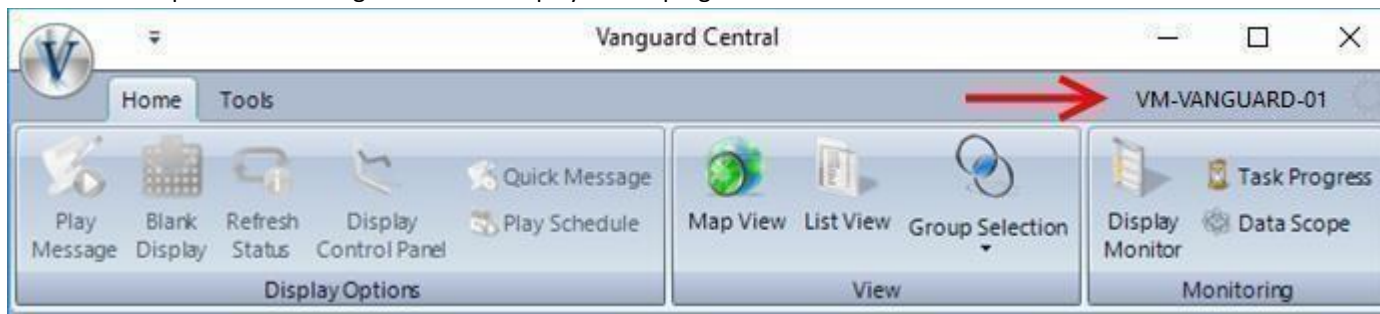
Vanguard Professional

Version: 4.26.0

Release Date: 1 March 2018

Features

- Server name that was specified in the login window is displayed in top right of the client’s main view.



- Ability to designate active or passive server state
 - Server state can be retrieved and changed remotely via Vanguard client and API.
 - User initiated sign communication and scheduled scenarios are limited to the active server.
 - Travel Time service is started and stopped automatically based on active or passive state.
 Request *Vanguard Server High Availability - Architecture and Administrator Guide* (DD3845111) for additional info.

Fixes

- Server Log Viewer will load significantly faster for large systems (initial query is now last 1 day instead of 14 days).
- Display status will correctly update in client after running a message resulting in thumbnails exceeding 32 KB.
- Weekly scheduled scenario that includes multiple days will correctly run on the subsequent days after the first.
- Horizontal and vertical alignment specified for textboxes in Content Studio will always result in [jl] and [jp] tags after each [tr] tag within the MULTI. This averts an ambiguous area in NTCIP 1203 standard where sign controller may fallback to message defaults.

Database

This applies only for advanced deployment where database is managed by end user’s IT staff. Database updates are backward compatible with older server versions, SQL updates should be run before upgrading to new version of Vanguard.

<http://dakfiles.daktronics.com/downloads/vanguard/install/version4/hidden/VanguardDatabaseScripts.zip>

- Nucleus Database (dbo) v35.sql
 - Alter dbo.DiskData trigger BeforeDiskDataDelete

2. Nucleus Database (dbo) v36.sql
 - a. Alter dbo.DiskData trigger BeforeDiskDataDelete
3. Nucleus Database (dbo) v37.sql
 - a. Alter dbo.DynamicDataProfileIDs primary key and constraints
4. Nucleus Database (dbo) v38.sql
 - a. Alter dbo.DiskData trigger BeforeDiskDataDelete
5. Nucleus Database (dbo) v39.sql
 - a. Alter dbo.Devices deviceName length
6. Nucleus Database (dbo) v40.sql
 - a. Create L_ServerActiveStatusCodes
 - b. Create usp_ServerActiveStatusCodes_Sel
 - c. Create table HighAvailabilityServers
 - d. Create usp_HighAvailabilityServers_Ins
 - e. Create usp_HighAvailabilityServers_Upd
 - f. Create usp_HighAvailabilityServers_Del
 - g. Create usp_HighAvailabilityServers_Sel

Vanguard Professional

Version: 4.25.2

Release Date: 22 May 2017

Fixes

1. Opening a schedule that contained a day plan with 24 messages without blank gaps will now open correctly.
2. Improvements in determining whether a blank message at end of day is necessary when sending a schedule. This is particularly relevant when a day plan contains 24 messages and when day plans are recurring daily, all days of the week, or weekday vs. weekend.
3. SQL Server 2014 is now installed for Windows 10 compatibility.

Vanguard Professional

Version: 4.25.1

Release Date: 22 September 2016

Fixes

1. Improved client error messages and logging if error encountered during view/edit of brightness table.

2. Fixed "Cannot read keys..." error when sending a schedule. NOTE: Only existed in 4.25.0.

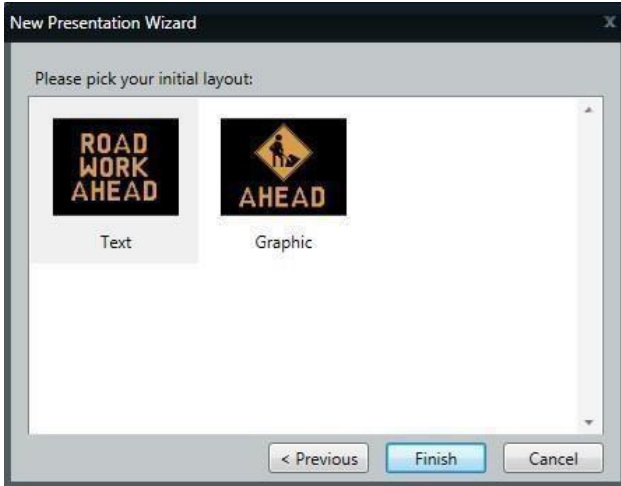
Vanguard Professional

Version: 4.25.0

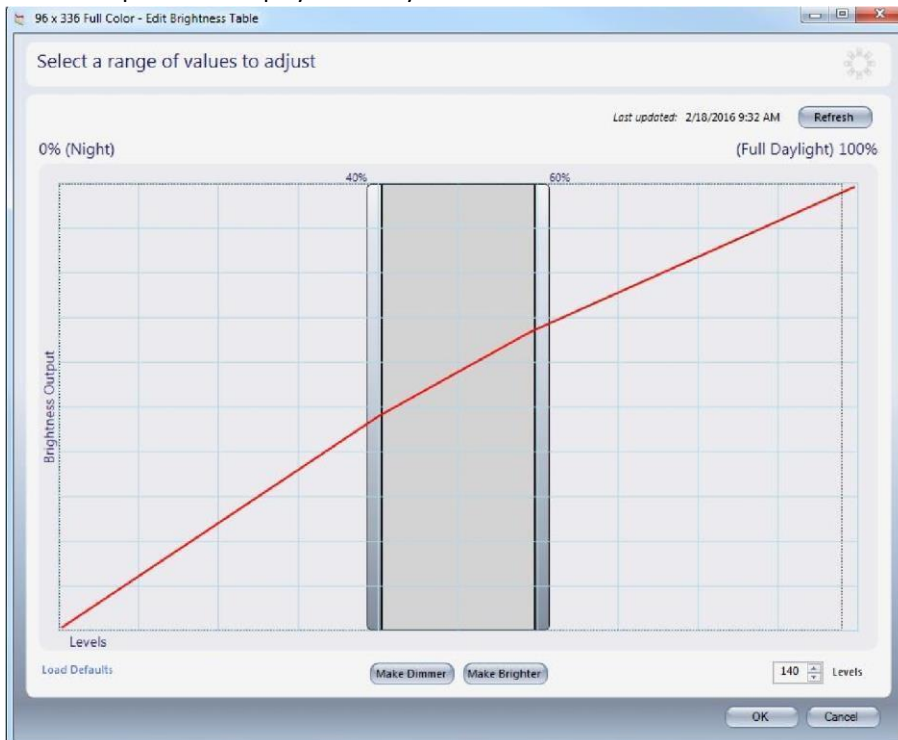
Release Date: 19 September 2016

Features

1. Single layout for matrix sign types in Content Studio. The decision point (pictured below) for Text or Graphic layout was removed and functionality merged in the editor. Drawing features on the new merged canvas are tied to inserting a bitmap.



2. Added a dialog to adjust the brightness table. This allows fine tuning a displays brightness under different ambient light conditions to improve the display's visibility.



3. Added fractional seconds to Data Scope to facilitate troubleshooting of timing issues.

Fixes

- 1. Modified UI to improve usability in Manage Display Groups and Software Control pages. Addresses sizes of some columns to prevent cutting off text, presentation of long lists, and icon layout.
- 2. Remove "Professional Upgrades" license in UI since this is not currently used.
- 3. Run message task never transitions from New in task progress window if initiated from Set Message Time Remaining task for Travel Time and MQM customers resulted in many Run Message tasks that appeared not to finish.

Description	Status	Started	Completed
Set Message Time Remaining	Completed	11:55:59 PM	11:56:15 PM
Get Status	Completed	11:55:14 PM	11:55:14 PM
Send Message	Completed	11:55:13 PM	11:55:14 PM
Run Message	New	11:55:13 PM	

- 4. Improved look of Database Utility on Windows 10 and Windows Server 2012.

Database

This applies only for advanced deployment where database is managed by end user's IT staff. Database updates are backward compatible with older server versions, SQL updates should be run before upgrading to new version of Vanguard.

<http://dakfiles.daktronics.com/downloads/vanguard/install/version4/hidden/VanguardDatabaseScripts.zip>

- 1. Nucleus Database (NTCIP) v83.sql
 - a. Add table BrightnessTable
 - b. Add table BrightnessTableLevel
 - c. Add procedure BrightnessTableLevel_Del
 - d. Add procedure BrightnessTable_Del
 - e. Add procedure BrightnessTable_Set
 - f. Add procedure BrightnessTableLevel_Ins
 - g. Add procedure BrightnessTable_Sel
 - h. Add procedure BrightnessTableLevel_Sel

Vanguard Professional

Version: 4.24.2

Release Date: 7 June 2016

Fixes

- 1. Installer is now signed with SHA2 instead of older SHA1. This addresses an error when downloading the installer.

Vanguard Professional

Version: 4.24.1

Release Date: 1 June 2016

Features

1. Vanguard server installer support for local SQL Server 2014 SP1 installed manually (DD3302758).
2. For advanced situations, added GET/SET ability for daktHeartBeatThreshold and daktLuxLightScalar within NTCIP profiles for Daktronics VFC 3000.

Fixes

1. Clicking the button to import within the Data Scope window will no longer clear existing data if the user cancels.
2. System up time will show correctly for new VFC within Diagnostics Test in Display Control Panel.
3. Text entered directly on an imported image in Content Studio using Venus font was incorrectly being omitted when the message was sent an NTCIP v2 display. The issue existed in versions 4.22.0-4.24.0 only.



4. Restoring a backup via Nucleus Database Utility was failing in situations when folder permissions were invalid.

Vanguard Professional

Version: 4.24.0

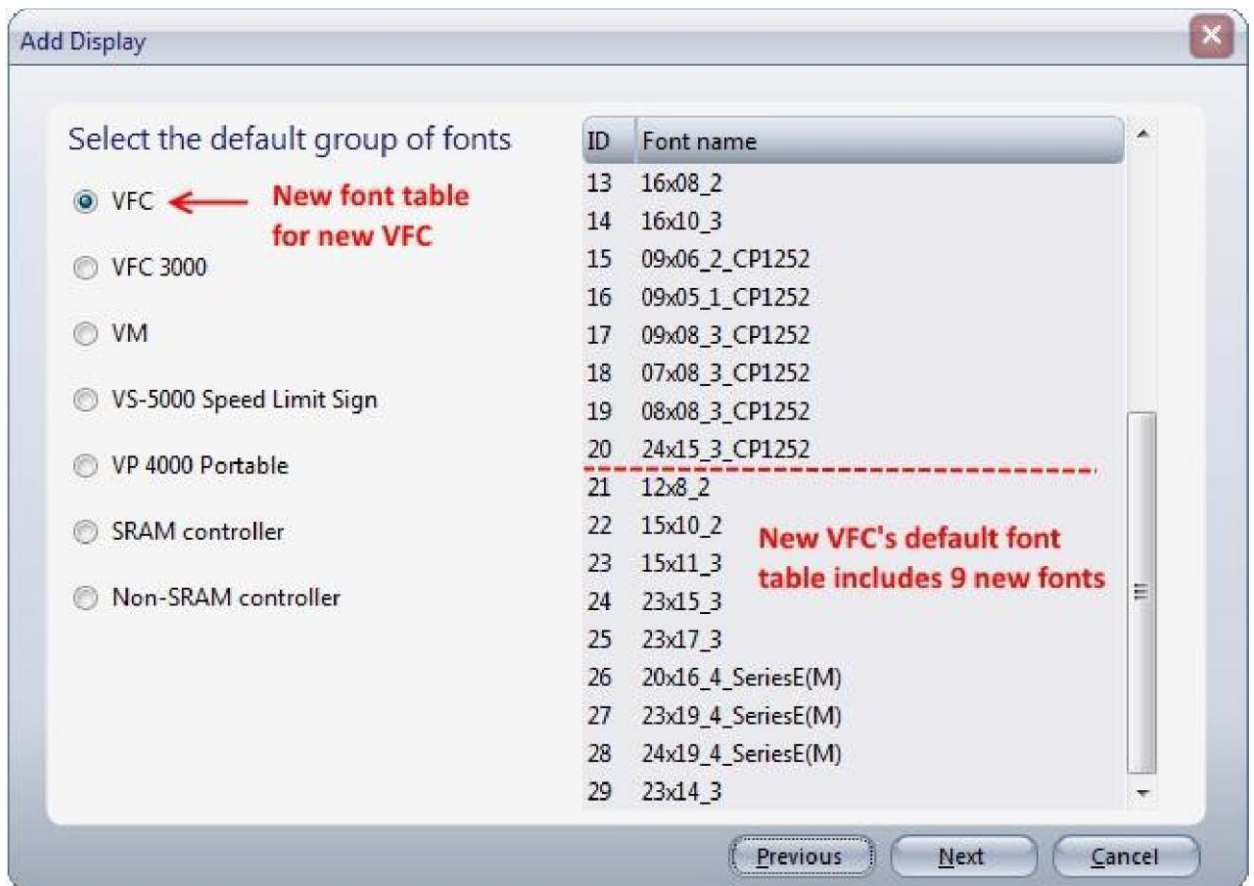
Release Date: 9 November 2015

Features

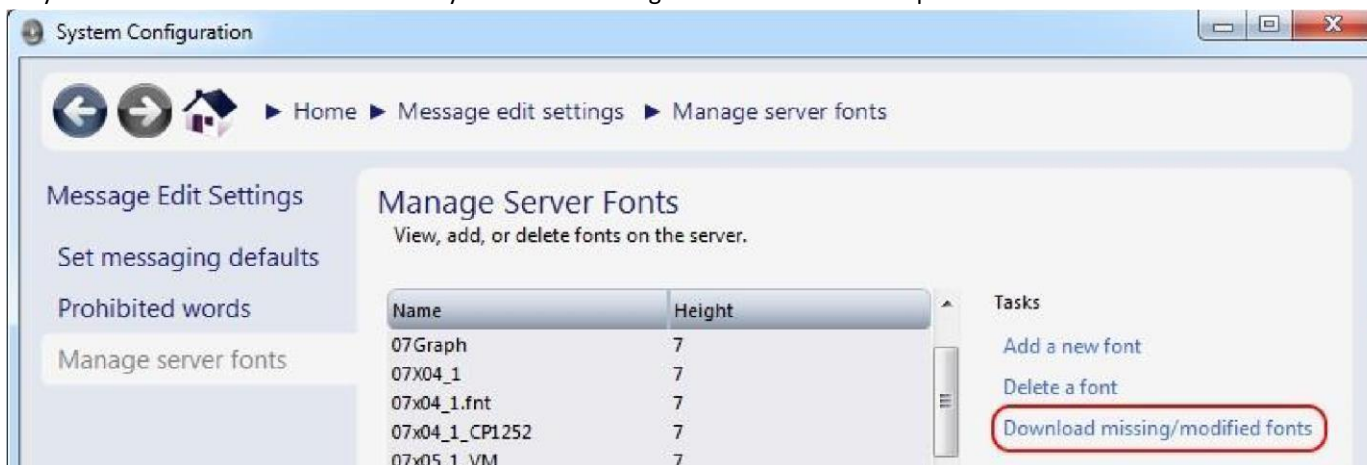
1. Automatic configuration in the Add Display wizard supports the next generation VFC. Vanguard will retrieve config for display type and NTCIP profile. Previously, only the VFC-3000 was supported for automatic configuration.
2. Font table support for the next generation VFC, which has 29 default fonts compared to the VFC-3000's 20 fonts.

IMPORTANT: The new VFC font table is now the default selection, if configuring a display for a VFC-3000 be sure to select the appropriate font table.

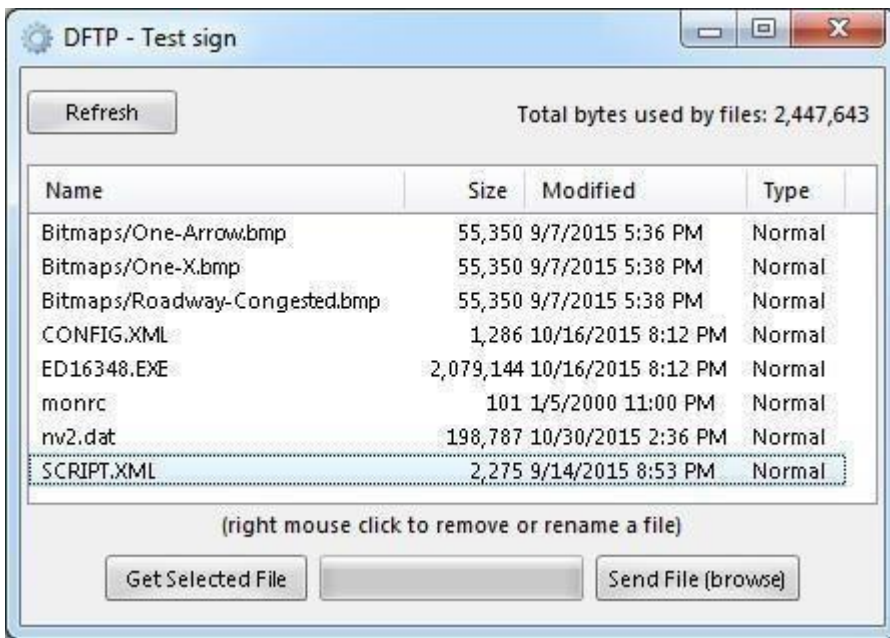
KNOWN ISSUE: The previewer in Content Studio and Quick Message does not yet support font indexes beyond 20, however this has no adverse impact to the message and it will play successfully when sent to the display.



- Download missing/modified fonts will look on the local client computer for any missing or modified server fonts. Previously this was titled "Synchronize fonts with server" and only looked for missing fonts on the client computer.



- Content Studio will display a warning during save if a Travel Time field with TrueType font is directly on the page background instead of being placed in a separate text box for better efficiency.
NOTE: This warning is only for TrueType fonts, it is not applicable for Venus (NTCIP) fonts.
- Vanguard Configuration Utility's DFTP window will show file attributes (size, modified date, and type).



Fixes

1. Status for full brightness correctly reported as 100%, previously Vanguard sometimes interpreted as 97%.
2. Arrow and apostrophe characters are correctly included in the 23x15_3 and 23x17_3 fonts.
3. Font 23x14_3 is corrected by dropping the "_2013" suffix in the name.
4. Improve initial success rate of file uploads over Daktronics File Transfer Protocol (DFTP), previously Vanguard would sometimes fail when reach 100% progress and then restart the upload process again with reduced packet sizes. This could cause unnecessary slowness and/or failures when uploading new firmware or sending messages containing Daktronics graphics (i.e. [ms11g...] tag in MULTI instead of the [g...] tag for NTCIP graphics).
5. File downloads over Daktronics File Transfer Protocol (DFTP) was not working in Vanguard 4.22 and 4.23 which prevented viewing file listing or retrieving a file from the controller through Vanguard Configuration Utility.
6. Additional cleanup of resources that may have contributed to a benign accumulation of operating system handles.
7. Previously retrieved diagnostic bitmaps are no longer used after the functionality is disabled in NTCIP profile's MIB.
8. If a client or integration application requests summary information from server at the same time the diagnostic bitmaps are being downloaded from the controller the resulting summary information will correctly include rendered thumbnails and subsequent requests of summary information will include the diagnostic bitmaps when available. Previously in Vanguard v4.17.4 to v4.23 this situation resulted in no thumbnail for the current message.
9. Entries in the verbose log file for sign operations in certain situations included incorrect username.

Database

This applies only for advanced deployment when database is managed by end user's IT staff. Database schema updates are backward compatible with older versions of Vanguard server and should be applied before upgrading Vanguard server.

<http://dakfiles.daktronics.com/downloads/vanguard/install/version4/hidden/VanguardDatabaseScripts.zip>

1. Nucleus Database (NTCIP) v82.sql
 - a. Add procedure NTCIP.usp_DiagBitmap_DelByDeviceAndDescription

Vanguard Professional

Version: 4.23.1

Release Date: 19 August 2015

Fixes

1. Message validation during save now correctly ignores text boxes with TrueType font outside of display bounds.

Vanguard Professional

Version: 4.23.0

Release Date: 11 August 2015

Features

1. Name of NTCIP profile for next generation VFC is now named "Daktronics VFC (NTCIP v3)". Previously the profile was added as "Daktronics VFC Gen 2 (NTCIP v2)".

NOTE: VFC-3000 based controllers (VF, VL, VM, VSLS) should continue to use the "Daktronics VFC 3000 (NTCIP v1)" or "Daktronics VFC 3000 (NTCIP v2)" profiles.

2. Missing NTCIP / Venus fonts on a client computer are automatically downloaded from server.
3. Image windows and text boxes with TrueType font will automatically be clipped if outside the display bounds allowing additional flexibility with positioning elements without generating an error during send.



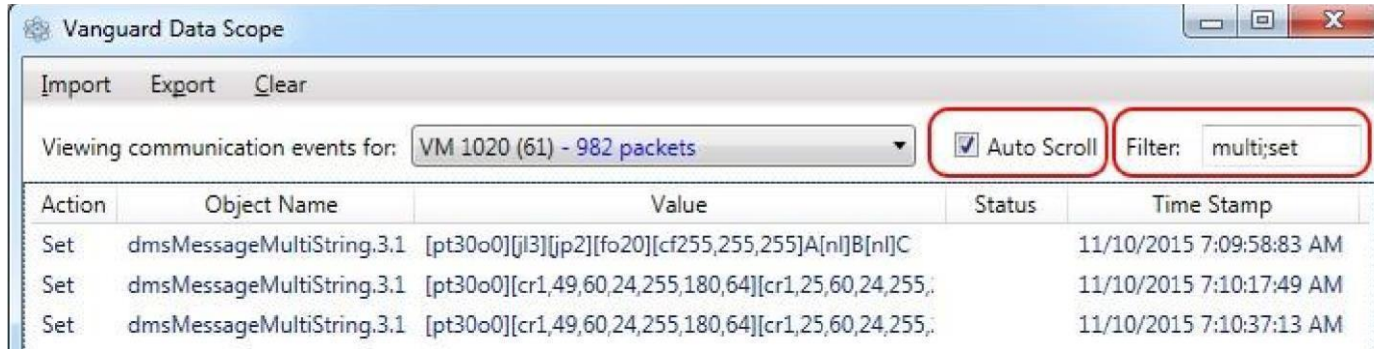
4. Travel time data fields placed in a separate text box will now be excluded from the graphic that is rendered from background text using TrueType font. This feature requires Daktronics Travel Time v4.5 or newer.



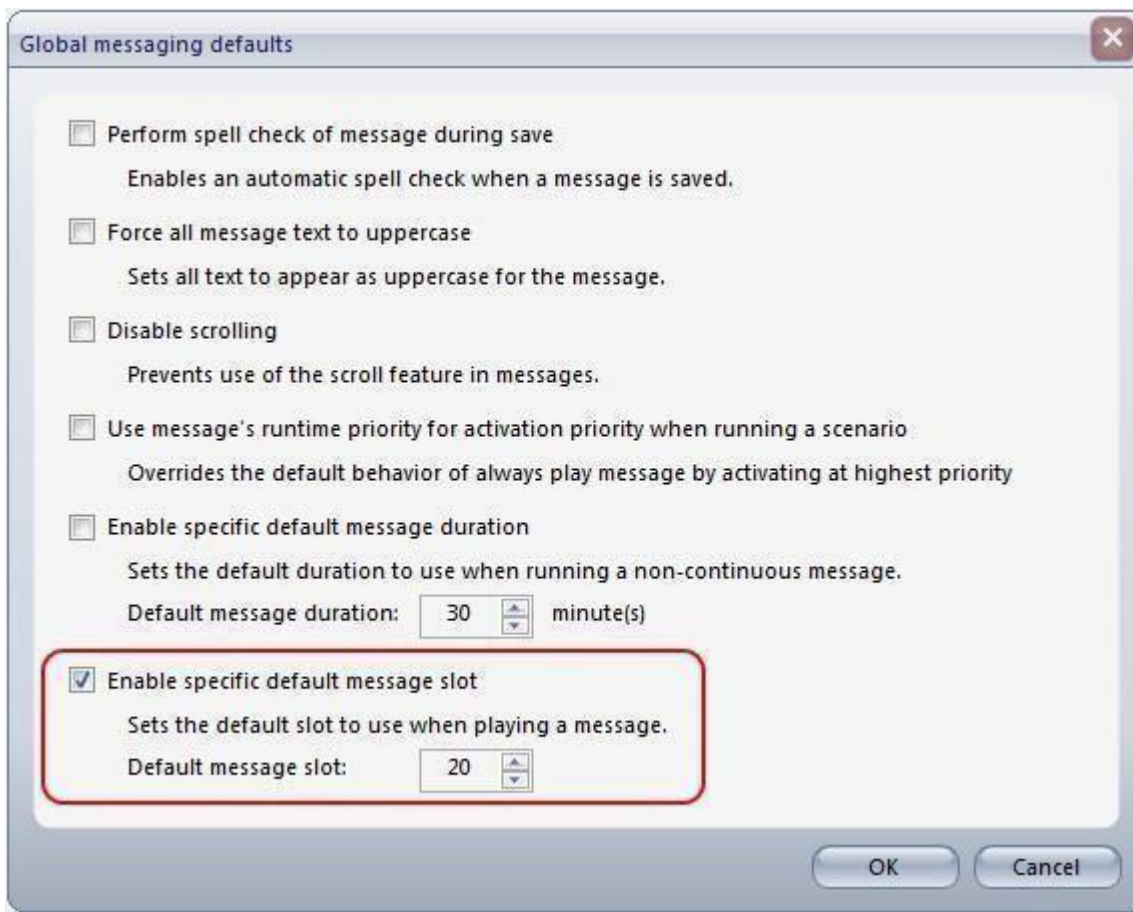
The separation allows for reuse of the graphic displaying static text while only resending the smaller graphic displaying the nonstatic text when the travel time value changes (if also TrueType font).



- 5. Data Scope window includes auto scroll and filter options. The case-insensitive filter can include multiple search criteria separated by a semicolon. The action, object name, object id, value, and status columns are inspected.



- 6. The default slot used when playing a message is now configurable within System Configuration. The default will continue to be slot 1.



7. Unreferenced NTCIP graphics will be automatically deleted if controller has insufficient memory to store new graphics when sending a message. Unreferenced graphics could have resulted from previous communication errors while sending a message.
8. Source mode (`dmsMsgSourceMode`) for current message is included in the log entry when status is retrieved.
9. Static values of `dmsDrumIndex` and `dmsDrumDescription` are no longer retrieved when retrieving status of a drum sign. Vanguard will infer the index from the table index and generate the description by appending the index to the "Drum Motor #". In addition to reducing unnecessary communication, on occasion drum controllers were abnormally timing out on these requests and consequently delaying completion of a preceding message activation.

Action	Object Name	Object ID	Type	Value
Get	<code>dmsDrumIndex.1</code>	1.3.6.1.4.1.1206.4.2.3.9.7.27.1.1.1	Integer	No longer retrieved
Response	<code>dmsDrumIndex.1</code>	1.3.6.1.4.1.1206.4.2.3.9.7.27.1.1.1	Integer	1
Get	<code>dmsDrumStatus.1</code>	1.3.6.1.4.1.1206.4.2.3.9.7.27.1.4.1	Integer	
Response	<code>dmsDrumStatus.1</code>	1.3.6.1.4.1.1206.4.2.3.9.7.27.1.4.1	Integer	2 (No Error)
Get	<code>dmsDrumDescription.1</code>	1.3.6.1.4.1.1206.4.2.3.9.7.27.1.2.1	OctetString	No longer retrieved
Response	<code>dmsDrumDescription.1</code>	1.3.6.1.4.1.1206.4.2.3.9.7.27.1.2.1	OctetString	Drum Motor #1
Get	<code>dmsDrumMfrStatus.1</code>	1.3.6.1.4.1.1206.4.2.3.9.7.27.1.3.1	OctetString	
Response	<code>dmsDrumMfrStatus.1</code>	1.3.6.1.4.1.1206.4.2.3.9.7.27.1.3.1	OctetString	Position: H00M00 = 2032; Current

Fixes

1. Certain client errors due to an extended period of inactivity are now prevented.
2. Page background color specified in message defaults for a display type is now correctly applied in Content Studio and Quick Message.

- In certain situations, Vanguard v4.18 to v4.22 could have displayed incorrect message properties (name, priority, and/or thumbnail). Specifically, if the CRC of the newly activated message was the same as the previous message or if the message changed in the source location after activation.

Database

This applies only for advanced deployment when database is managed by end user's IT staff. Database schema updates are backward compatible with older versions of Vanguard server and should be applied before upgrading Vanguard server.

<http://dakfiles.daktronics.com/downloads/vanguard/install/version4/hidden/VanguardDatabaseScripts.zip>

- Nucleus Database (NTCIP) v81.sql
 - Add column messageSlot to NTCIP.GlobalMessageDefaults
 - Add column textEngine to NTCIP.GlobalMessageDefaults
 - Add values messageSlot and textEngine to NTCIP.usp_GlobalMessageDefaults_Sel
 - Add parameters messageSlot and textEngine to NTCIP.usp_GlobalMessageDefaults_Upd

Vanguard Professional

Version: 4.22.0

Release Date: 7 July 2015

Features

- Data Scope window includes a description in addition to integer value for several common objects.

Action	Object Name	Object ID	Type	Value
Get	dmsMessageStatus.3.1	1.3.6.1.4.1.1206.4.2.3.5.8.1.9.3.1	Integer	
Response	dmsMessageStatus.3.1	1.3.6.1.4.1.1206.4.2.3.5.8.1.9.3.1	Integer	1 (Not Used)
Set	dmsMessageStatus.3.1	1.3.6.1.4.1.1206.4.2.3.5.8.1.9.3.1	Integer	6 (Modify Request)
Response	dmsMessageStatus.3.1	1.3.6.1.4.1.1206.4.2.3.5.8.1.9.3.1	Integer	
Get	dmsMessageStatus.3.1	1.3.6.1.4.1.1206.4.2.3.5.8.1.9.3.1	Integer	
Response	dmsMessageStatus.3.1	1.3.6.1.4.1.1206.4.2.3.5.8.1.9.3.1	Integer	2 (Modifying)

- Task progress indicator will stop immediately when server is no longer actively communicating to a sign. Previously the indicator would continue for several seconds after completion to signify recent activity.



- New scenario task available for advanced memory management of Daktronics M2/M3 based controllers. *NOTE: This should only be used when necessary and with Daktronics assistance.*

The scenario can be run manually or scheduled. When the scenario runs if the current value for percent of flash memory marked as dead (daktDeadMemoryPercentage) exceeds configurable threshold then memory cleanup will be proactively performed on the controller. If the value is below threshold or is not supported then no action is performed on the controller.

- Content Studio will prompt user to select display or display type prior to opening a message enabling the file dialog to open initially in the chosen content folder. This can be helpful if the user only knows the display name.

- Time since last boot sequence of the controller (sysUpTime) is retrieved in diagnostics test.

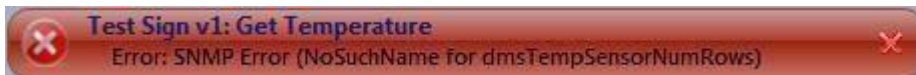
Description	Value
% of database used or marked as dead	6%
% of flash memory marked as dead	0%
Available graphic memory	241,384 bytes
Controller temperature	67
Front light sensor	1
System up time	2 days, 9 hours, 5 minutes
Watchdog failure count	18

- Object name is included in the message for SNMP errors (GenErr, NoSuchName, etc.). This will aid in configuring the NTCIP profile's MIB to match what the sign supports.

Previous:



Now (without index):



Now (with index or table-index):



Fixes

- Contents of the Comments and Software Control columns in main list view show correctly.

Vanguard Professional

Version: 4.21.0

Release Date: 2 June 2015

Features

- VM-1020 Full Color Line Display Enhancements

Set background colors on individual lines using the Line Color button in the Fonts box on the Home Tab Add graphics to lines using the Media Item button on the Home Tab



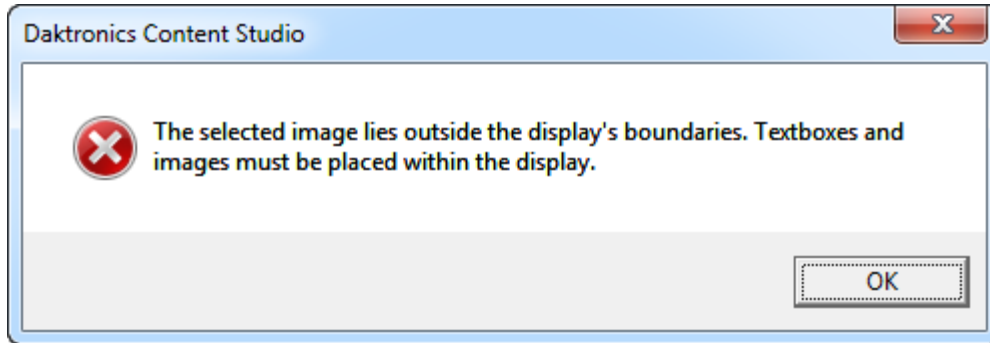
Example message content for full color line



2. Added options for bold, italic, and underline of text (TrueType fonts only).



3. A validation prompt is shown when saving messages with graphics and text boxes outside the display boundaries.



4. Additional memory-related values retrieved within diagnostics test.

Description	Value
% of database used or marked as dead	6%
% of flash memory marked as dead	0%
Available graphic memory	241,384 bytes

% of database used or marked as dead

Percent of the flash database file that is used or no longer usable. Controller will automatically reclaim the portion that is unusable when this value is greater than 75.

Applies to Daktronics M2/M3 based controllers with firmware version v1.9.4588.19 or newer.

% of flash memory marked as dead

Percent of free memory that is currently unusable. Controller will automatically reclaim memory during a regular restart if the value is between 75 and 90 or at runtime when the value reaches 90.

Applies to Daktronics M2/M3 based controllers with firmware version v1.9.4588.19 or newer.

Available graphic memory

Number of bytes currently available to store NTCIP graphics.

NOTE: Daktronics firmware prior to 1.9.4588.22 will incorrectly report a constant value.

5. Replacing a message that referenced NTCIP v2 graphics will attempt to first send the new message and graphics prior to removing the previous. If the display has insufficient memory and the previous message is activated then the display will be blanked to remove the message and graphics.
6. Windows service will automatically restart if unexpectedly stops due to an error.

Fixes

1. NTCIP/Venus text on background of graphic layout in Content Studio are correctly treated as regular text instead of a graphic.
2. Improved scaling of message thumbnails shown in main view's status bar.
3. Display comments can be saved without having to change the display's online/offline status.
4. Unused graphics are correctly removed from a display when a message fails to send because of an invalid message or not enough memory available to store it.
5. Unused graphics are correctly removed from a display when a message is removed in the message library.
6. Message status will correctly be reset to 'notUsed' if non-communication error occurs during send message and current message is not valid. Previously the message status would have been left as 'modifying'.
7. Message will be resent if status is not valid when activating a message.

Vanguard Professional

Version: 4.20.1

Release Date: 23 March 2015

Fixes

1. Always use RGB value for the ten NTCIP classic colors within MULTI tags (new optional setting added in 4.20.0) will correctly be ignored and revert to classic color value for monochrome and tri-color signs. The setting will also be ignored if the NTCIP profile is configured as version 1.

Vanguard Professional

Version: 4.20.0

Release Date: 13 March 2015

Features

1. Performance improvement when creating new and opening messages in Content Studio and Quick Message.
2. Changes to message defaults take effect upon new or open message without requiring restarting Content Studio.
3. Ability to always use RGB value for the ten NTCIP classic colors within MULTI tags for full color NTCIP v2 signs. This applies to all color tags: page background, color foreground, and color rectangle

NOTE: The default will be to continue using the classic color which allows sign manufacturers to map classic colors (such as amber) to what looks best for the sign.

To instead force RGB value in all cases, edit NTCIP profile within System Configuration and check the box.



Fixes

1. Task Progress window will again report percent complete (step based, not time based).

NOTE: This applies only to sign tasks that have incremental steps such as send message or run pixel test.

Sign	Description	Status
Aaron (62) - 96x336 RGB - NTCIP v2	Run Message	Executing - 40%

Database

This applies only for advanced deployment when database is managed by end user's IT staff. Database schema updates are backward compatible with older versions of Vanguard server and should be applied before upgrading Vanguard server.

<http://dakfiles.daktronics.com/downloads/vanguard/install/version4/hidden/VanguardDatabaseScripts.zip>

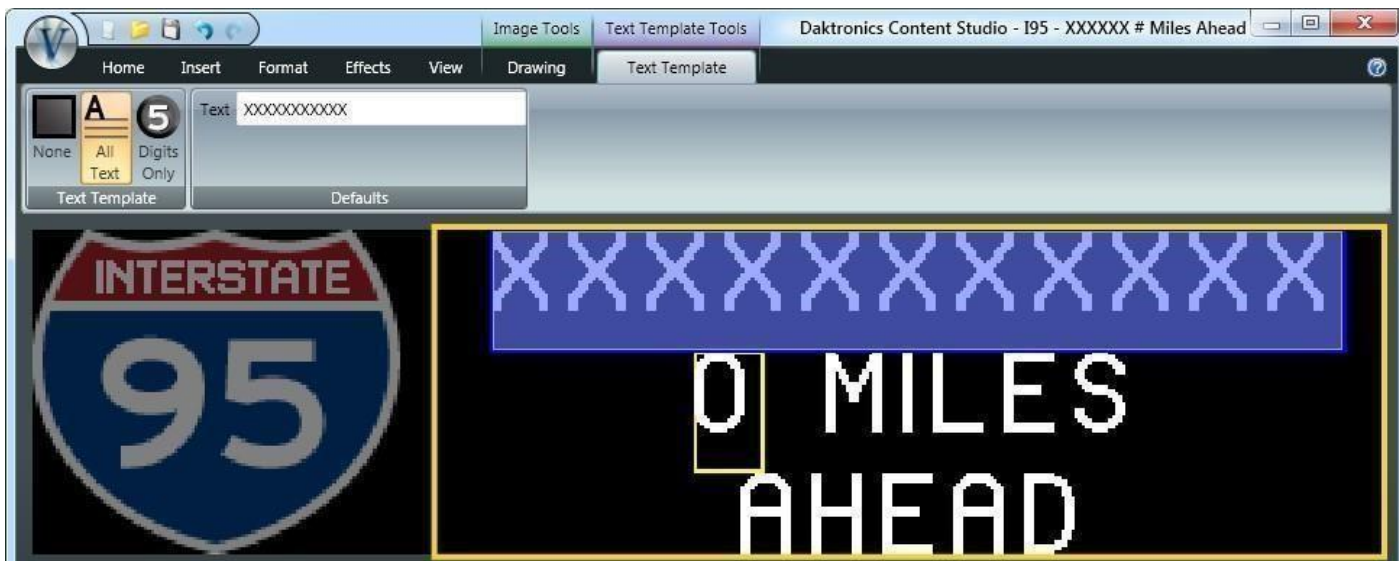
1. Nucleus Database (NTCIP) v80.sql
 - a. Add column useRgbValues to NTCIP.Profiles
 - b. Add parameter useRgbValues to NTCIP.usp_Profiles_Upd
 - c. Add parameter useRgbValues to NTCIP.usp_Profiles_Ins
 - d. Add value useRgbValues to NTCIP.usp_Profiles_Sel
 - e. Add value useRgbValues to NTCIP.usp_Profiles_SelInfo

Fixes

1. Signs with multiple networks configured will correctly fallback to the backup if the primary fails to connect. After the backup is disconnected, subsequent sign operations will begin with primary again.

Features

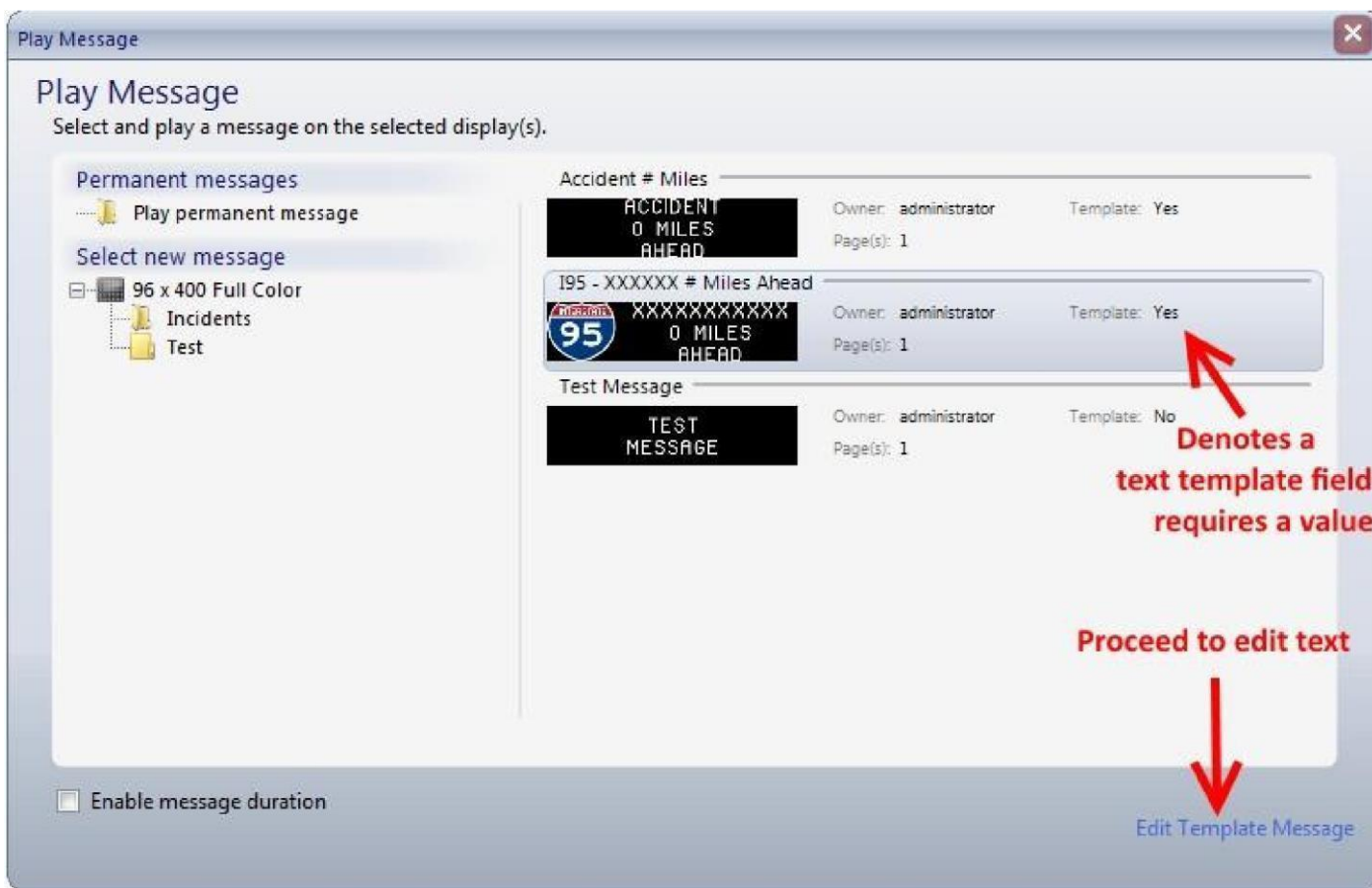
1. Template messages can be created within Content Studio and limited text changes entered by a user when sent to the sign. Text template fields are entirely a software-side feature as the actual messages sent to the sign are standard MULTI. Accordingly, the



feature is supported for all sign types (character, line, and full matrix) and all NTCIP versions.

Text can be selected and defined as a text template field allowing all text or only digits.

Sample text for the field specified when creating the message in Content Studio will show in the library message thumbnails. Actual values for the fields must be specified by the user before it can be played on a sign.



Play Message window in Vanguard Central will require a second step prior to sending a message that contains one or more text template fields.

Within the Play Message window the user is required to specify values for all text template fields within the message. Text properties (font, color, alignment, etc.) and all other parts of the message cannot be changed.

Play Message

Specify text for this message template.

Select a Different Message Preview Message



Page 1



Message shows the entered value(s)

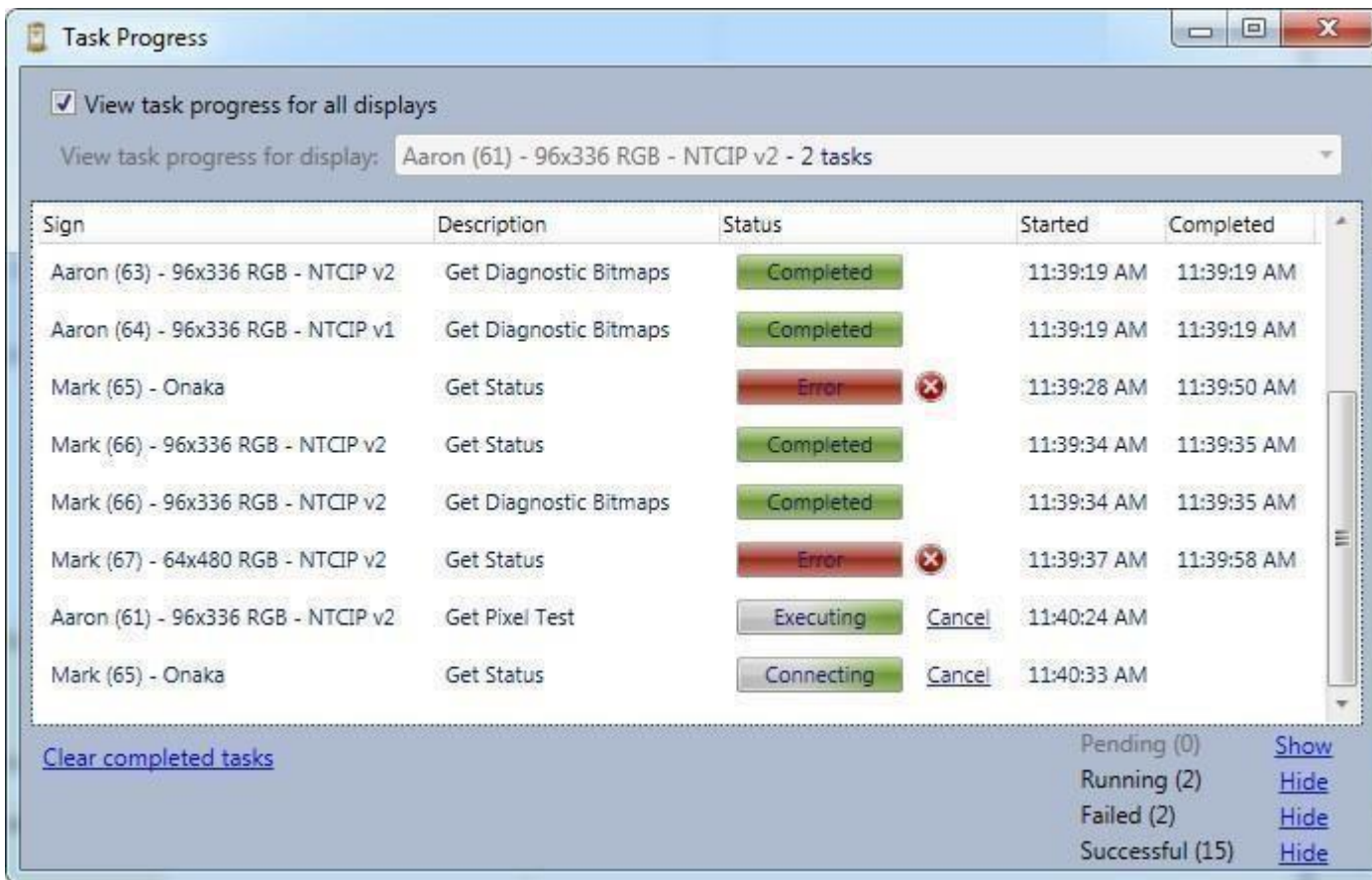
Field	Type	Value
1	Any Text	ROAD CLOSED
2	Digits Only	13

User enters value(s) for defined text template field(s)

Enable message duration
 Play message for minute(s).

Proceed to playing the message 

2. Task Progress window includes ability to view all signs and filter based on task state.



Fixes

1. Significantly improved the performance of retrieving all sign summaries from the database. Previously the amount of time needed increased considerably as number of signs increased. Vanguard client will load faster, even if older than version 4.19. Existing SDK integrations will also benefit.

Database

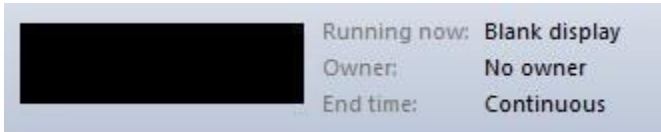
This applies only for advanced deployment when database is managed by end user's IT staff. Database schema updates are backward compatible with older versions of Vanguard server and should be applied before upgrading Vanguard server.

<http://dakfiles.daktronics.com/downloads/vanguard/install/version4/hidden/VanguardDatabaseScripts.zip>

1. Nucleus Database (NTCIP) v79.sql
 - a. Add procedure NTCIP.usp_DiagBitmap_GetAllByDescription
 - b. Add procedure NTCIP.usp_SignMessages_GetAllCurrentBuffer
 - c. Add procedure NTCIP.usp_SignMessageThumbnails_GetAllCurrentBuffer
 - d. Add procedure NTCIP.usp_SignMessageThumbnails_GetAllDiagnosticBitmaps

Features

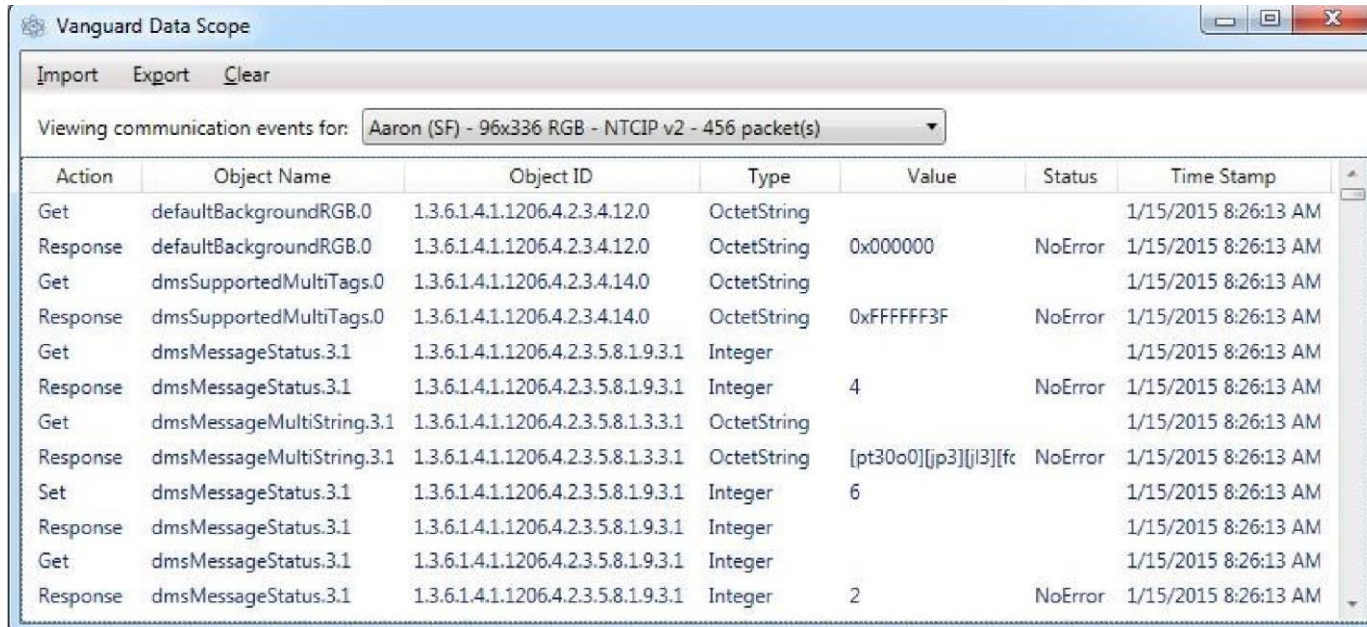
1. A blank thumbnail will be shown for current message if the sign is blanked. Previously, the client would omit the thumbnail for blank message.



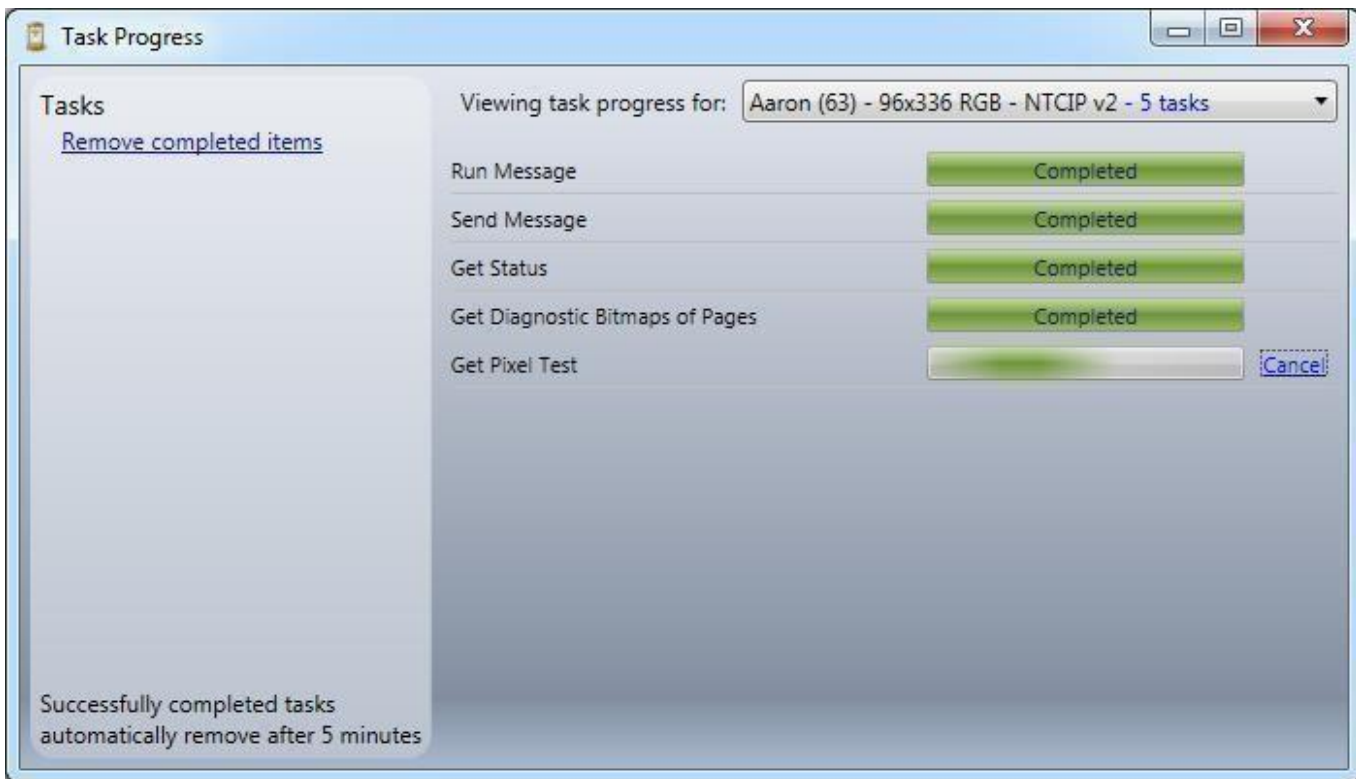
2. Added four new fonts. Note that in order for a font to be used it will first need to be added to a display type's font table in the software and then uploaded to all signs via Display Control Panel that use that display type.

Font Name	Height (inches)	Height (pixels)	Ave Width (pixels)	Stroke (pixels)	Char Spacing (pixels)	Line Spacing (pixels)
23x14_3	18" @ 20 mm	23	14	3	4	6
20x16_4_SeriesE(M)	16" @ 20 mm	20	16	4	5	10
23x19_4_SeriesE(M)	18" @ 20 mm	23	19	4	6	12
24x19_4_SeriesE(M)	18" @ 20 mm	24	19	4	6	12

3. Data Scope window has significant performance improvements for situations with high volume of sign activity.



4. Task Progress window has significant performance improvements for situations with high volume of sign activity.



- Ability to view and manage NTCIP v2 graphics stored on a sign within Display Control Panel.

Manage Display Graphics

Manage the NTCIP version 2 graphics stored on the display.

Note: Graphics are sent, reused, and removed automatically. This is for advanced administration.

Graphic library:

Index	Number	Status	CRC	Height	Width	Size	Name
1	1	readyForUse	0E1C	96	97	27,936	Unknown
2	2	readyForUse	F81E	46	46	6,348	Unknown
3	3	readyForUse	FF0F	46	46	6,348	Unknown
4	0	notUsed	0000	0	0	0	
5	0	notUsed	0000	0	0	0	
6	0						
7	0						
8	0						
9	0						
10	0						
11	0						
12	0						
13	0						
14	0						
15	0						
16	0						
17	0						
18	0						
19	0						
20	0	notUsed	0000	0	0	0	
21	0	notUsed	0000	0	0	0	

Graphic View

Tasks

- Refresh list
- View graphic
- Remove graphic
- Cleanup graphics

6. Drum diagnostics will be retrieved within a standard get status operation for drum signs.

Fixes

1. Displays in Manage Software Control page in System Configuration are sorted by name instead of number.
2. Current message's name, thumbnail, and priority show correctly when a new message is sent to the same message slot of the currently running message but not activated. The current message is obtained from Current Buffer (5.1) instead of message slot referenced by dmsMsgTableSource.

Example: Message "one" is sent to slot 1 and activated, then a new message "two" is sent to slot 1, but not activated, performing a Get Status will return the proper message that is playing ("one") instead of the current message in slot 1 ("two").

3. Message thumbnails for character sign types are improved in certain situations. Note this fix applies to new messages and not existing message thumbnails.

If the character width was 5 pixels but the sign's width was divisible by 6 (ex. 12 characters wide sign is 60 pixels) the thumbnail previously used the wrong module spacing.

Before:



Now:



If the message's MULTI did not specify a font tag the thumbnail previously defaulted to a variable width font.

Before:



Now:



4. Editing an existing scheduled scenario sometimes resulted in it running more frequently than scheduled and in turn increase server load and sign communications.
5. A scheduled scenario sometimes stopped running while still showing as scheduled.
6. Diagnostic bitmap is correctly retrieved when activating a message after sign was blank. Note this issue only existed in version 4.17.4.
7. Get sign summary API call will again return a blank (all black) bitmap for thumbnail when the currently activated message is the blank message. This returns the behavior to what existed in version 4.15 and earlier.
8. Nucleus Database Utility correctly waits for the Nucleus Server.exe process to exit before interacting with the database. Previously, the utility would often encounter an error due to active database connections. For an overview of the utility, see this [Knowledge Base article](#).

Fixes

1. Updating the status table in the database is done after retrieving diagnostic bitmaps. Previously it was possible after activating a new message to have the sign summary retrieved when the last update timestamp for status is updated to new value prior to the diagnostic bitmap thumbnails being updated. This could have resulted in a mismatch of message name and thumbnail in certain integration systems.

Vanguard Professional

Version: 4.17.3

Features

1. Update the closed condition for CMS-VMS hybrid action.
-

Vanguard Professional

Version: 4.17.2

Release Date: 29 October 2014

Features

Improved performance of updating client's main list of signs during high volume of sign operations.

- 1.
2. Improved error message when attempt to use a connection that has been disconnected. Previously, the error message would be the generic "Object reference not set to an instance." and now it will be "Connection has already been disconnected and cannot be used." While the error itself is not addressed, it is uncommon and will be further investigated.

Fixes 1. Drop down list for will no longer expand outside the bounds of the monitor's resolution which would cause the groups not to



2. Support for latest Travel Time version to specify message CRC when extending the time remaining of current message. If the CRC does not match what is currently playing the set time remaining task will be ignored. Previously, if certain conditions existed a travel time message could potentially overwrite a higher priority message.

Vanguard Professional

Version: 4.17.1

Release Date: 10 October 2014

Features

1. Ability to override the default (10) maximum number of concurrently executing sign operations. Changes to configuration are applied next time the Windows service is started. Value must be between 2-100.

Within Nucleus Server.exe.config, the following example would set maximum concurrent sign operations to 20.

```
<configuration>
  <daktronics.nucleus>
    <taskProcessor>
      <maxThreads value="20"/>
    </taskProcessor>
  </daktronics.nucleus>
</configuration>
```

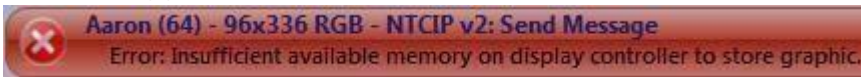
If a valid value is provided in the server configuration an informational log entry will be created on start up.

Severity	Title	Message
Information	Task Processor	Default overridden in configuration. Maximum concurrent sign operations: 20

2. Default setting (when not overridden in configuration) for breakdown graphics too large for the NTCIP 1203 DMS standard is enabled only for sending messages to volatile message table which is typically used for Travel Time. In version 4.17.0 the default was to also include this functionality when sending messages to changeable message table which is typically used for Vanguard client.

Fixes

1. Display icons in map view would sometimes disappear after a status updated event (get status, blank, etc.).
2. Improved error message when attempting to send NTCIP v2 graphic and controller is out of memory. Previously the error was "GenErr" denoting general controller error.



3. Increased the size of the controller drop down list to accommodate large names in Vanguard Configuration Utility.
4. Significant usability improvements to the DFTP window in Vanguard Configuration Utility.
 - Rename various user-interface controls and increase initial window size
 - Ability to specify destination file name when sending file
 - Automatically add "Bitmap/" prefix when sending bitmaps
 - Automatically upper-case file names when sending "SCRIPT.XML" or "CONFIG.XML"
 - Automatically prompt for restart with "load from script" option after send "SCRIPT.XML"
 - Automatically prompt for restart with "load from config" option after send "CONFIG.XML"

Features

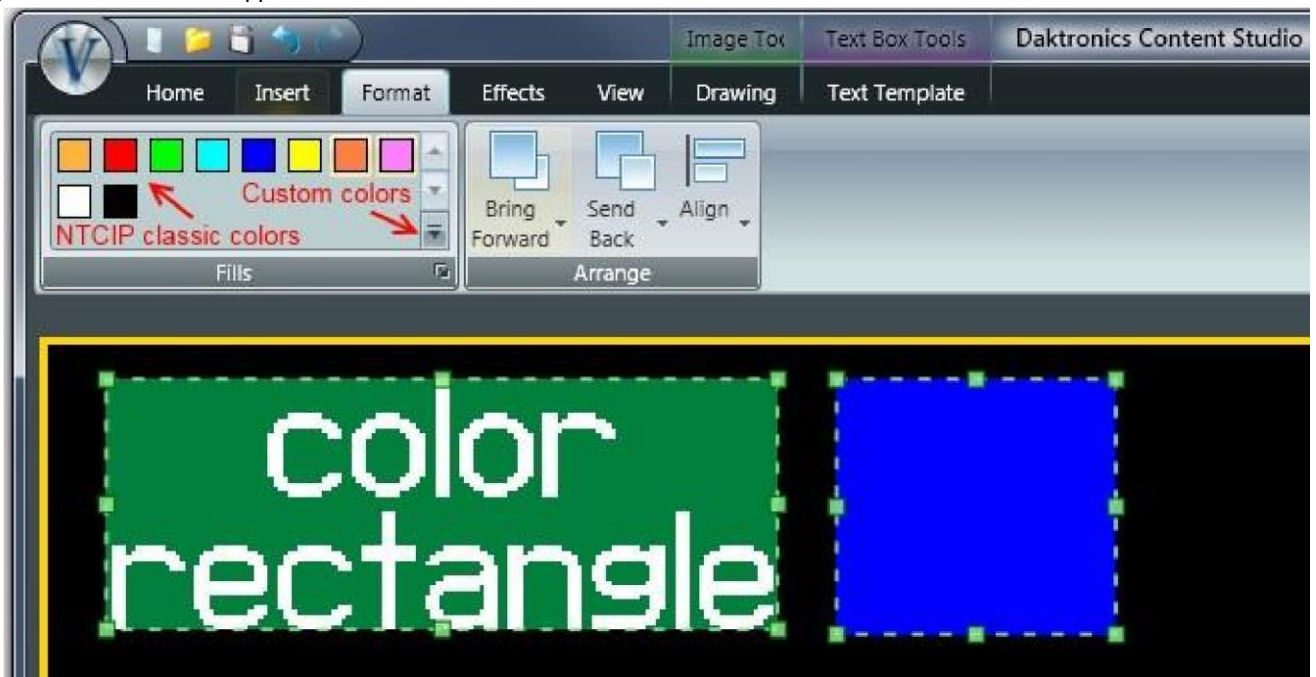
1. Support for creating messages in Content Studio (graphic layouts only) that utilize NTCIP v2 page background color ([pbz] and [pbr,g,b]) and color rectangles ([crx,y,w,h,z] and [crx,y,w,h,r,g,b]).

Existing messages with background color will automatically get sent with the page background tag in the MULTI. Previously this would have resulted in the entire page being sent as a graphic.

The background on a graphic layout supports fill color under the Drawing tab.



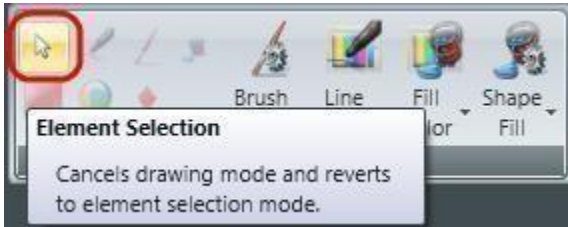
The background on a text box supports fill color under the Format tab.



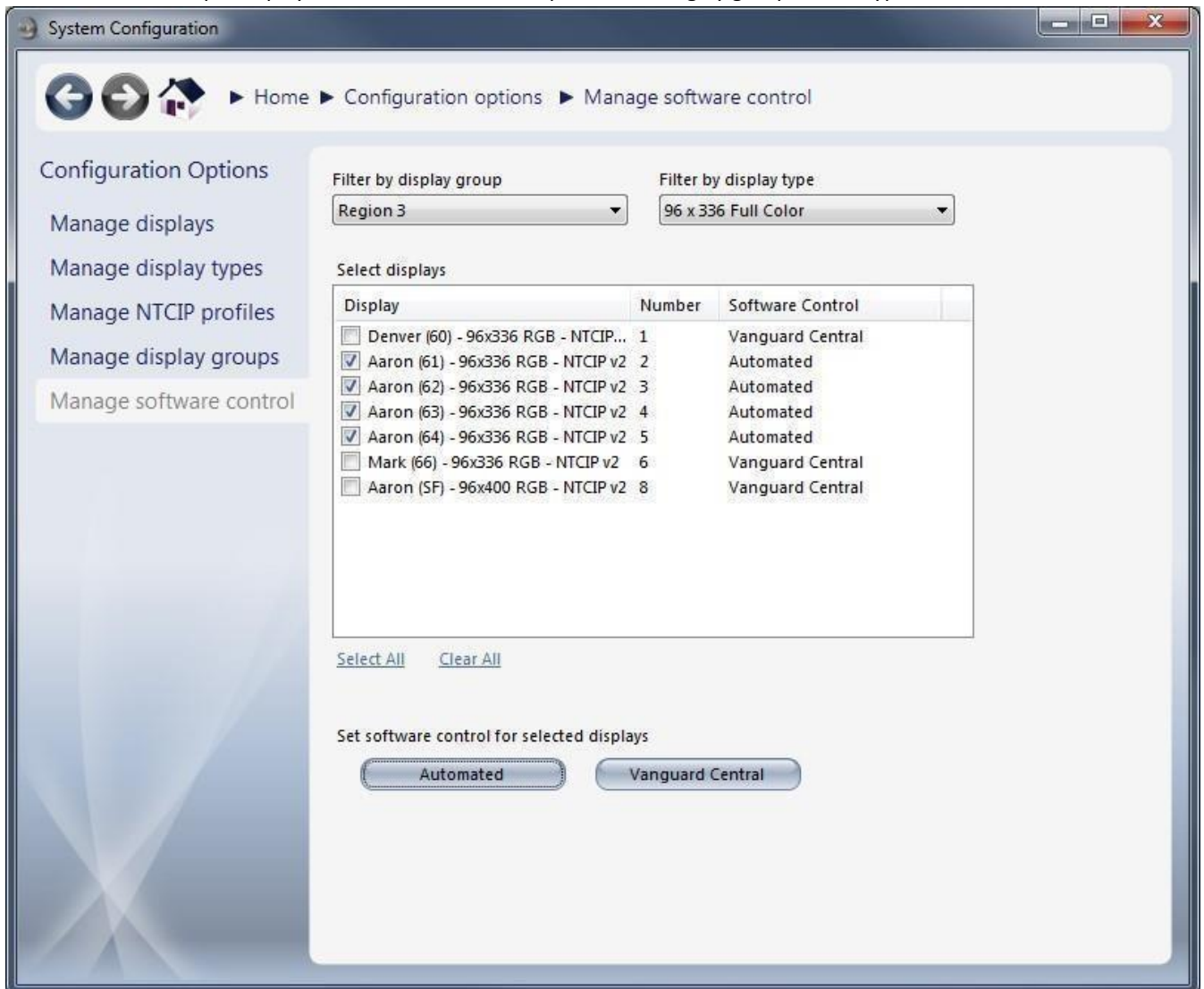
2. Layering and alignment controls within the Content Studio ribbon (graphic layouts only). To select multiple elements (text boxes and graphics) hold down the Ctrl key while clicking on the elements with the mouse.



3. Element selection option within the Content Studio ribbon (graphic layouts only). This can be used to cancel a drawing mode or editing of a text box. This is the same operation as pressing Esc on the keyboard.



4. Set software control for multiple displays at the same time with optional filtering by group and/or type.



- 5. Graphics that are too large for the NTCIP 1203 DMS standard will be automatically split into multiple smaller graphics. The maximum size of graphic within the standard is about 21,845 pixels. Previously, the too large graphics would be sent as manufacturer-specific graphics (ms11g tag) and resent each time.

For example, this is a message created in Content Studio has one large graphic (96x336) inserted on the background and two travel time fields (text boxes).



The graphic will be divided vertically according to the maximum size possible based on the graphic's width.

First graphic



Second graphic



The resulting output and MULTI is this



```
[pt3000][g2,1,1,DAC9][g3,1,64,EDA0][tr55,69,51,24][j14][jp3][fo20][cf7]21[tr223,69,51,24]44
```

It is important to note that the amount of graphics that can be stored on a sign controller is often limited by its available memory.

By default, this functionality will be enabled for all signs (*UPDATE: Starting in v4.17.1 the default is enabled only for sending messages to volatile memory type*). Within the server configuration file this can be restricted to message type and/or specific signs, or disabled entirely.

```
<configuration>
  <daktronics.vanguard.addIn>
    <breakdownLargeGraphics enabled="true|false" volatileOnly="true|false" signIds="id1,id2,id3,id4,etc."/>
  </daktronics.vanguard.addIn>
</configuration>
```

- 6. Split the request for dmsDrumStatusTable entries into multiple packets instead of one to accommodate manufacturers that may return GenErr on dmsDrumDescription and dmsDrumMfrStatus for valid table entries.

Fixes

1. Multi-line text on the background of a graphic layout would sometimes fail to preview or when send to sign.
2. NTCIP v2 graphics are correctly reused when the previous message in the destination slot contains the same graphics in the message being sent. Previously, this would blank the sign and remove the soon to be unreferenced graphics when neither of which is necessary when all of the previous message's graphics are still referenced by another message stored on the controller or the ensuing message.

Vanguard Professional

Version: 4.16.1

Release Date: 9 September 2014

Fixes

1. Server will correctly handle creating configuration file for hybrid control when it does not yet exist.

Vanguard Professional

Version: 4.16.0

Release Date: 8 September 2014

Features

1. Increased maximum values for sign types configuration.
2. New web service to configure and control hybrid signs consisting of CMS and VMS.

Fixes

1. Allow "Power User" role to change online/offline mode of a sign. This historically required only "Power User" role but inadvertently changed to require administrators role in 4.15.0.
2. Log entry for updating software control mode correctly includes the name in the "Device" column.
3. Removed an unnecessary delay after activating a message when daktDiagBitmap is not enabled in the sign's NTCIP profile.
4. Removed an unnecessary delay after activating a message and daktDiagBitmap is enabled in the sign's NTCIP profile but its size exceeds supported dimensions for diagnostic bitmaps.
5. Removed an unnecessary delay after blanking a sign and daktDiagBitmap is enabled in the sign's NTCIP profile.
6. Setting dmsMessageBeacon when sending a message is done in a separate packet after setting dmsMessageMultiString, dmsMessageOwner, and dmsMessageRunTimePriority. This corrects an issue where beacons sometimes did not correctly activate.

7. Log entry when connection attempt fails did not have the correct user name for who initiated the sign operation. If sign operation is initiated by a scenario then the user name will still be unspecified (empty).

Vanguard Professional

Version: 4.15.3

Release Date: 14 August 2014

Fixes

1. Client computers can send template messages. Previously, the client was not correctly using the address for the remote server resulting in an internal error.

Vanguard Professional

Version: 4.15.2

Release Date: 8 August 2014

Features

1. Show all displays by default and rename the “Show Automated Displays” button to “Hide Automated Displays”.



2. Ability to set software control mode from Automated to Vanguard Central in main view for an individual display.



3. The editor’s cursor within Content Studio defaults to the top line for character and line display types.

4. When playing a template message the name of Content Studio message will be used.

Fixes

1. Red close button in change software control mode will correctly close the window.
2. No longer add extra new line tag in MULTI when sending a message with blank line(s) at bottom of page to character or line sign. This fix eliminates the need of work around by adding a space to the blank line.



3. Playing a template message will correctly use the message runtime priority of the Content Studio message.

4. Correctly handle diagnostic bitmap differences between BMP and PNG.

Vanguard Professional**Version:** 4.15.1**Release Date:** 25 July 2014**Fixes**

1. Play message template correctly requires Standard user role or higher.
2. Change software control mode correctly requires Standard user role or higher.

Vanguard Professional**Version:** 4.15.0**Release Date:** 18 July 2014**Features**

1. Security user roles has been expanded from four to five. The primary change is restricting sign configuration to only users with "Administrator" role. Previously configuring signs was allowed to users with "Power User" role.

IMPORTANT: Existing users that had "Standard User" role who still require Content Studio access should be manually upgraded to a "Power User" role by an administrator.

IMPORTANT: Existing users that had "Power User" role who still require sign configuration ability should be manually upgraded to a "Administrator" role by an administrator.

Comparison from earlier versions

Display Status Read Only Display Diagnostics Read Only

Task Progress Read Only

Data Scope Read Only

Functionality	Before	Version 4.15
Retrieve status and diagnostics	Limited	Read Only*
Blank Display	Standard	Limited

Play existing message, schedule, scenario	Standard	Limited
Play quick message	Standard	Standard
Create or edit message, schedule, scenario	Standard	Power
Edit Sign Configurations	Power	Administrator

*Existing users with "Limited User" role will be automatically migrated to new "Read Only" role

Listing of functionality and required role with new version

Functionality	Required Role
Display Monitor	Read Only
Server Log Viewer	Read Only
Unlock content by me	Read Only
UI Color Scheme	Read Only
Play Existing Message	Limited User
Play Schedule	Limited User
Play Test Patterns	Limited User
Run Scenarios	Limited User
Blank Sign	Limited User
Retrieve Server Fonts	Limited User
Reboot Display	Limited User
Modify Display Message Library	Limited User
Pixel Failure Test	Limited User
Play Text Template Message	Standard User
Quick Message	Standard User
<u>Display Software Control Mode</u>	<u>Standard User</u>
Content Studio Message	Power User
Schedule Studio	Power User
Scenario Management	Power User
View NTCIP Community Names	Power User

Manage Maintenance Heater Power User
 Auxiliary Output Power User
 Management
 Manage Display Event Power User
 Logging
 Display Brightness Power User
 Display Time Power User
 Modem Connections Power User
 Manage E-mail Notifications Power User
 Unlock content by all users Power User

Add/Modify/Delete Administrator
 Displays
 Add/Modify/Delete Display Groups Administrator
 Modify/Delete Administrator
 Display Types
 Add/Modify/Delete NTCIP Profiles Administrator
 Add/Delete Server Fonts Administrator
 Add/Modify/Delete User Accounts Administrator
 Password Requirements Administrator
 Global Message Defaults Administrator
 Display Message Defaults Administrator
 View Prohibited Words Administrator
 Modify Prohibited Words Administrator Modify
 Communication Timeouts Administrator
 E-mail Server Management Administrator Reboot Display and Clear Memory
 Administrator
 Add/Delete Display Fonts Administrator
 Modify Display Event Activations Administrator
 Pixel Failure Threshold Administrator
 Display Callback Configuration Administrator
 LCD Password Management Administrator
 CHAP Management Administrator

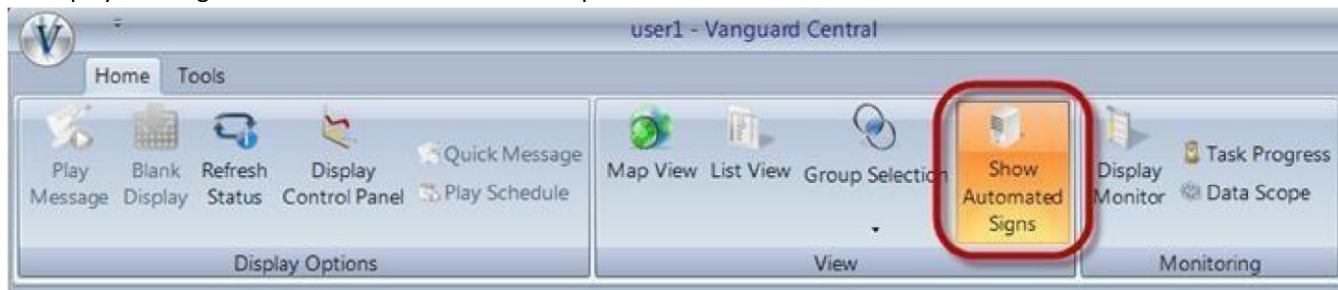
- Ability to restrict changing the message on a display from within Vanguard Central that is actively being controlled by an automated system interacting directly to the Vanguard Server. This setting differs from online/offline mode which prevents all communication to the display from all sources. All displays configured as "Automated" will be hidden by default in the main list and map views.

The software control setting can be set within Manage Displays in System Configuration





If one or more display is configured with as “Automated” a new option is visible within the ribbon



3. Improved error strings when fail to activate a message, particularly for activation priority. Before: "Activate message error 3. Activation priority is too low."
Now: "Activation priority (64) is lower than currently running message (190)."
4. Increased maximum size of the drop down for group selection in the ribbon to accommodate systems with many groups.
5. New messages created in Content Studio that include graphic pages will have significantly reduced file size. This does not affect existing messages. The primary beneficiary is performance on the server computer when Travel Time messages utilize graphic pages.

Fixes

1. User role requirements are correctly enforced when clicking on Visibility group heading within Display Control Panel for a NTCIP v2 supported sign.
2. Server Log Viewer will always open maximized. Previously, the initial size and position would occasionally open small and off the screen.
3. Improved various server log entries.

Database

This applies only for advanced deployment when database is managed by end user’s IT staff. Database schema updates are backward compatible with older versions of Vanguard server and should be applied before upgrading Vanguard server.

<http://dakfiles.daktronics.com/downloads/vanguard/install/version4/hidden/VanguardDatabaseScripts.zip> 1.

Nucleus Database (dbo) v34.sql

a. Downgrade existing users with LimitedUser role.

2. Nucleus Database (NTCIP) v78.sql

a. Added isAutomated column to Signs table and associated stored procedures.

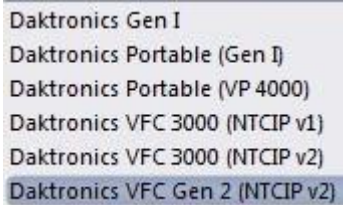
Vanguard Professional

Version: 4.14.0

Release Date: 5 June 2014

Features

1. Added new profile named "Daktronics VFC Gen 2 (NTCIP v2)".

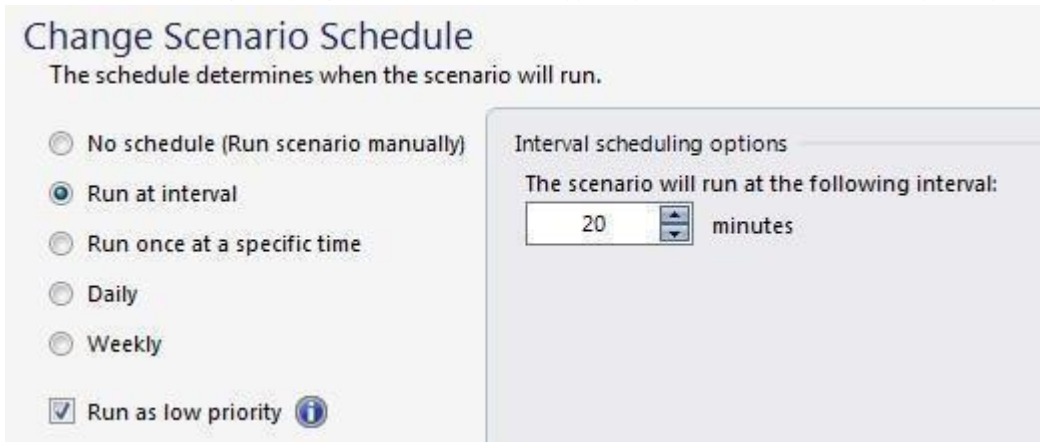


2. Support for "eventConfigStatus" object in the NTCIP 1103 standard (when enabled in profile).

3. Added new server fonts: 12x8_2, 15x10_2, 15x11_3, 23x15_3, and 23x17_3.

4. Additional graphics added to clip art. Available at [Program Files]\Daktronics\Vanguard\V4\Clip Art.

5. Scenarios can be configured to run as low priority allowing sign actions initiated by operators to run before any waiting actions from the scenario. Polling and diagnostic scenarios are typically best suited to run as low priority.



Consider the following two examples where 'Play Message' is initiated after polling for 20 signs started

Example 1 – Scenario Run As Normal Priority			
Priority	Sign	Operation	State
Normal	1	Get Status	Executing
Normal	2	Get Status	Executing
Normal	3	Get Status	Executing
Normal	4	Get Status	Executing
Normal	5	Get Status	Executing
Normal	6	Get Status	Executing
Normal	7	Get Status	Executing
Normal	8	Get Status	Executing
Normal	9	Get Status	Executing
Normal	10	Get Status	Executing
Normal	11	Get Status	Waiting
Normal	12	Get Status	Waiting
Normal	13	Get Status	Waiting
Normal	14	Get Status	Waiting
Normal	15	Get Status	Waiting
Normal	16	Get Status	Waiting
Normal	17	Get Status	Waiting
Normal	18	Get Status	Waiting
Normal	19	Get Status	Waiting
Normal	20	Get Status	Waiting
Normal	21	Play Message	Waiting

Example 2 – Scenario Run As Low Priority			
Priority	Sign	Operation	State
Low	1	Get Status	Executing
Low	2	Get Status	Executing
Low	3	Get Status	Executing
Low	4	Get Status	Executing
Low	5	Get Status	Executing
Low	6	Get Status	Executing
Low	7	Get Status	Executing
Low	8	Get Status	Executing
Low	9	Get Status	Executing
Low	10	Get Status	Executing
Normal	21	Play Message	Waiting
Low	11	Get Status	Waiting
Low	12	Get Status	Waiting
Low	13	Get Status	Waiting
Low	14	Get Status	Waiting
Low	15	Get Status	Waiting
Low	16	Get Status	Waiting
Low	17	Get Status	Waiting
Low	18	Get Status	Waiting
Low	19	Get Status	Waiting
Low	20	Get Status	Waiting

In the second example, the 'Play Message' operation initiated by the operator will execute before all waiting operations initiated by the scenario which was run as low priority.

Fixes

1. Fixed "Unknown VMPL element" error when sending message with text on background of graphic layout (NTCIP v2).
2. Fixed issue where a scheduled scenario may encounter an unexpected error on initialization and fail to run again until the scenario is modified to restart its schedule. The probability of this occurring increased with the number of scenarios running at the same time.
3. Removed redundant log entries for starting scenarios.

Database

This applies only for advanced deployment when database is managed by end user's IT staff. Database schema updates are backward compatible with older versions of Vanguard server and should be applied before upgrading Vanguard server.

<http://dakfiles.daktronics.com/downloads/vanguard/install/version4/hidden/VanguardDatabaseScripts.zip>

1. Nucleus Database (NTCIP) v75.sql
 - a. Added eventConfigStatus to the EventLog table.
2. Nucleus Database (NTCIP) v76.sql
 - a. Fixed a problem with stored procedure for updating the DrumReading table.
3. Nucleus Database (NTCIP) v77.sql
 - a. Added priorityLevel to the ScriptingGroups table and select, add, insert stored procedures.

Vanguard Professional**Version:** 4.13.9**Release Date:** 31 May 2014**Features**

1. Fan RPM Sensor shows value of "Off/On" instead of "Fail/Success".
2. Added new operation to NtcpSignManagementService to retrieve multiple sign summaries (SDK).

Fixes

1. Content Studio messages with extended ASCII characters (arrows, etc.) will show correctly when played on signs. **IMPORTANT: Messages that previously used the workaround will need to be updated.**
 - 1) Open the message in Content Studio
 - 2) Replace the old (wrong) characters with new (correct) characters via the Character Map window
 - 3) Preview the message to verify expected results
 - 4) Save the message
2. Log Viewer no longer fails to open if have large number of signs.
3. Brightness column in main list view correctly updates after brightness value changed on sign and sign status retrieved is retrieved again.
4. Resources are correctly released when creating message thumbnails with high frequency of saving messages (typically via Travel Time). Previously, the server's handle and memory usage would continuously grow in this scenario until the service is restarted.
5. If a dial-up connection encounters a modem failure on first attempt it will correctly recover during second attempt.

Vanguard Professional**Version:** 4.13.8**Release Date:** 20 November 2013**Fixes**

1. Assume all blank message type CRCs are 0 and status is valid when issuing a blank sign command. This fix was for a nonDaktronics sign.

Vanguard Professional**Version:** 4.13.7**Release Date:** 14 November 2013**Fixes**

1. CHAP failures are reported to user interface instead of showing as connection could not be established.



2. When CHAP failures occur for non-Daktronics signs, modems are released properly. Previously, the modem became unusable until a service restart.

Vanguard Professional**Version:** 4.13.6**Release Date:** 24 October 2013

Fixes

1. When opening graphic message in Content Studio, the cursor is no longer active on background.
 2. Dialup improvements to better handle connection and disconnection timeouts to improve connectivity.
-

Vanguard Professional

Version: 4.13.5

Release Date: 12 October 2013

Features

1. Added additional logging to the debug output that can be viewed in real-time from DebugView or similar utility.

Fixes

1. About Box correctly shows server component versions when using remote SQL Server instance.
 2. Prevent lock up of sign communications that can occurred when an active connection is lost unexpectedly at the same time an idle dialup modem is being disconnected.
-

Vanguard Professional

Version: 4.13.4

Release Date: 25 September 2013

Fixes

Client

1. Rolled back schedule regarding timeBaseScheduleDate change in 4.13.3.

Database

Note: This applies only for advanced deployment of remote databases.

1. Nucleus Database (NTCIP) v74.sql
 - a. Added table entry for file type: "Configuration".
 - b. Added table entry for composite file and schema: "Configuration" and "NTCIP".
-

Vanguard Professional

Version: 4.13.3

Release Date: 23 September 2013

Fixes

1. Removed the network test button in the sign configuration wizard due to not always returning the correct success or failure result.
 2. Prevent a server crash when updating message thumbnails. This is preventative for situations where Travel Time messages are generated frequently.
 3. Sending a schedule with an everyday recurring day plan properly sets the timeBaseScheduleDate value to 0 instead of -2.
-

Vanguard Professional

Version: 4.13.2

Release Date: 3 September 2013

Features

1. Added ability to add up to 24 entries within a schedule's day plan. The previous maximum value was 12 entries. An appropriate error will be given when sending the schedule if the sign does not support that many entries.

Vanguard Professional

Version: 4.13.1

Release Date: 27 August 2013

Features

1. Added ability to resend the message if the CRC does not match when setting message time remaining. This functionality is used by the Daktronics Travel Time application.

Vanguard Professional

Version: 4.13.0

Release Date: 20 August 2013

Features

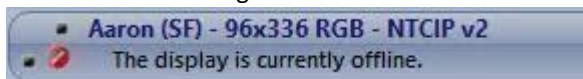
1. Server selection in login window can be disabled with command line argument `/disableServerSelection`.



2. Removed the fade in/out transition between page thumbnails. The new transition changes between each page every 2 seconds ignoring page on and off times. Note: Preview in Content Studio will use page on and off times set defined in the message.
3. The current message's source mode is viewable in the status view of Display Control Panel. The value corresponds to NTCIP's `dmsMsgSourceMode` (local, central, reset, end duration, power recovery, etc.).



4. Offline notifications are no longer shown in the main view when the sign is offline.



5. Clip Art added images for Interstate specific numbers. The Clip Art folders were reorganized: 1) *Interstate* became *Interstate Template* and 2) added *Interstate Numbers*.
6. Increased the default for maximum concurrent client calls for a service in relation to the number of processors on the computer.
7. Increased performance of climate control test by running in parallel instead of sequential.

8. Changed retrieve message list to get one message per packet instead of two for better support of controllers with lower maximum packet size restriction.
9. Brightness objects can be disabled in the NTCIP profiles. This is specifically for better drum sign support.

Fixes

1. Load performance improved in Central view due to retrieving brightness values.
2. The Power Status view in Display Control Panel shows Not Available when any power objects are disabled in the NTCIP Profile.
3. Message Activations view in Display Control Panel shows the values for any activations even if one of the objects are disabled in the NTCIP Profile.
4. Dialup connection (PPP and PMPP) error handling improvements were made to improve the stability of the server from shutting down in various conditions. Specific exceptions were Object Reference Not Set and Index Out of Range. Note: in some cases when these exceptions occur, the server modem may be in a state and may not recover instantaneously. However, the server will remain active waiting for modem to return to operational state.
5. NTCIP v2 font sending handles fonts in unmanaged states when replacing an existing font. Previously, the existing font had to be removed first. Note: this also fixed the font synchronization in Manage Display Fonts.
6. Retrieving event activation values when one or more of the NTCIP objects are disabled no longer is reported as an error.
7. SNMP version checking validates correctly when value is encoded with two byte length. This only occurred with US Traffic signs.
8. Thumbnails are created correctly for character matrix sign types. Previously, the thumbnail sometimes failed to be created.
9. Thumbnails are created correctly in certain situations when refreshing the message list or sign status. The problem existing more often with non-Daktronics signs or pre VFC3000 controlled signs.
10. Thumbnails are created correctly when creating many thumbnails. This fixes a problem with Travel Time service and Vanguard Server when messages are being generated frequently.
11. Get diagnostics bitmap task is not generated if Daktronics specific diagnostics bitmap objects are disabled.

Database

This applies only for advanced deployment when database is managed by end user's IT staff. Database schema updates are backward compatible with older versions of Vanguard server and should be applied before upgrading Vanguard server.

<http://dakfiles.daktronics.com/downloads/vanguard/install/version4/hidden/VanguardDatabaseScripts.zip>

1. Nucleus Database (NTCIP) v73.sql
 - a. Add table DrumReading
 - b. Add table DrumMap
 - c. Add procedure usp_DrumReading_SetAt
 - d. Add procedure usp_DrumReading_Sel
 - e. Add procedure usp_DrumReading_SelLastUpdated
 - f. Add procedure usp_DrumReading_Del
 - g. Add procedure usp_DrumMap_Set
 - h. Add procedure usp_DrumMap_Get
 - i. Add procedure usp_DrumMap_Del

Features

1. Content Studio has been updated to include Travel Time field for use with Daktronics Travel Time applications. Note: the external applications are required for the field to be functional.



2. Add new service call for integration to be able to send and play messages including graphic files.
3. Added support for event activation messages IDs of 0x or 0x00000000 to be treated as a blank message.

Vanguard Professional

Version: 4.11.0

Release Date: 9 May 2013

Features

1. Added support for dmsMsgTableSource with value of 0x0000000000 when sign is non-compliant with NTCIP.

Fixes

1. Font View status for NTCIP v1 sign shows full font list instead of only font number 1.
2. Removed a memory leak when sending MULTI messages to the sign.
3. Removed possible dead lock condition based on timing of new tasks when idle disconnect set to zero.
4. Improved client notifications to include all applicable data eliminating subsequent callbacks to server.
5. Combined get status and brightness task to improve performance with single error if connection failure.
6. Improved threads utilization after disconnecting from a sign.
7. Fixed problem with TrueType font text boxes when sending to sign.

Vanguard Professional

Version: 4.10.1

Release Date: 10 April 2013

Fixes

1. Starting Content Studio from Venus 1500 (if installed in addition to Vanguard) no longer fails to load.

Vanguard Professional

Version: 4.10.0

Release Date: 26 March 2013

Features

1. Ability to choose the remote server from the log in screen. Click the name to change selected server or configure available servers. The related Configure Remote Server utility is no longer included in the installation of Vanguard.



2. Auto archive logging occurs when log size reaches 3.5 GB and no longer defaults to a scheduled time basis.
3. Additional logging output (Verbose.log in the Nucleus Server\Logs folder).
4. Added support for NTCIP 1203 v2 object 'dmsActivateMessageState' to monitor message activations of drum type sign messages.
5. Added scenario name to email subject for scenario result notifications.

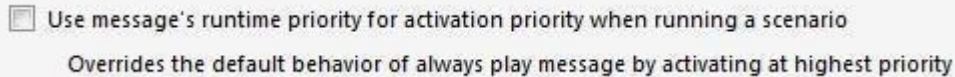
Fixes

1. Extended ASCII characters (arrows, etc.) through the character map window correctly work.
2. Display types sorted by name within Set Message Defaults in System Configuration.
3. Displays and display types sorted by name within new schedule wizard in Schedule Studio.
4. Fixed issue with scheduled scenarios not running for 24 hours.

Features

1. In scenarios, added option to set the activation priority when running new messages to match the runtime priority of the message to be played. This feature will allow users to prevent messages in scenarios from overriding higher priority messages. This is a global setting for all scenarios, if messages are expected to run, then those messages should be created at Emergency priority for scenarios.

Setting is available in Global Message Defaults within System Configuration

**Features**

1. Automated database backups are disabled by default for custom remote database installations. Backups need to be managed by end users' database administrators.
2. Automated database log trims are disabled by default for custom remote database installations. The database will not be limited by 4 GB size limit of SQL Server Express and is expected to be managed by end users' database administrators.

Fixes

1. Nucleus Server passes startup validation when database names are different than the default.
2. In Schedule Studio, the extended calendar view starts displaying the current month.

Features

1. Vanguard now utilizes the .NET framework v4.0, previously was v3.5. This update will require .NET 4.0 to be installed on every client and server computer. The install will download the files necessary for update. NOTE: Any custom add-ins will be required to be updated with v4.9.
2. On new installs Vanguard server will install SQL Server 2008 Express as the database engine. Existing installs will remain on SQL Server 2005 Express.
3. Windows 8 and Windows Server 2012 added to supported operating systems.
4. Installer supports installations to custom locations other than C:\Program Files (x86)\Daktronics. NOTE: This is not recommended if other Daktronics products are also installed.
5. Installer supports the server to be on different computer than the SQL database.
NOTE: This is for advanced use only and requires contacting Daktronics for installation support.

6. NTCIP 1203 v2 Temperature Status Table is visible in the Temperature Status Views under Sensors. Example:

View Temperatures

Monitor the temperature inside and outside the display.

Summary

Sensor Type	Minimum value	Maximum value
Control cabinet sensors	49°C / 120.2°F	49°C / 120.2°F
External sensors	30°C / 86°F	30°C / 86°F
Internal sensors	33°C / 91.4°F	33°C / 91.4°F
Critical temperature	Not available	103°C / 217.4°F

Sensors

Description	Status	Value	Warning Low	Critical Low	Warning High	Critical High
TEMPCONTROLLER	0	49	0°C / 32°F	0°C / 32°F	0°C / 32°F	0°C / 32°F
TEMPAMBIENT	0	30	0°C / 32°F	0°C / 32°F	0°C / 32°F	0°C / 32°F
TEMPSIGN1	0	33	0°C / 32°F	0°C / 32°F	0°C / 32°F	0°C / 32°F
TEMPSIGNMODS	0	37	0°C / 32°F	0°C / 32°F	0°C / 32°F	0°C / 32°F

7. Online/offline option allows user to specify text why display was set offline.

Change display communication mode

Change Display Communication Mode

Determine server communication to the display.

Online
 The server will communicate normally to the display.

Offline
 The server will not communicate to the display.

Comments:

Power was knocked out at site due to vehicle accident.

Save Cancel

Fixes

1. No longer allow editing of default Daktronics NTCIP Profiles' MIBs. Must create new profiles to edit.

Features

1. Added predefined auxiliary output: Lane Use Sign - Blank, Red X, Green Arrow.

2. Log entries for get values via DirectAccessNticip web service are verbose instead of information.

Fixes

1. UDP/IP string within the display wizard is corrected.
 2. Fixed certain serial timeouts when PMPP packets contain CRCs with 0x7E and 0x7D values.
-

Vanguard Professional

Version: 4.8.6

Release Date: 15 October 2012

Fixes

1. Safely handles an unexpected trailing null in the font name's octet string when retrieving a display's font list.
-

Vanguard Professional

Version: 4.8.5

Release Date: 14 September 2012

Fixes

1. Server Log Viewer correctly shows the default 14-day filter in the query builder view.
 2. Increased the amount of time before retrieving status after activating a schedule to compensate for controllers that require additional time.
-

Vanguard Professional

Version: 4.8.4

Release Date: 7 September 2012

Features

1. Added ability to send schedule to a Ver-Mac portable display.
2. Added ability for custom application code to be executed when a message is activated or blanked.

Fixes

1. Improved performance of Server Log Viewer start up and queries.
-

Vanguard Professional

Version: 4.8.3

Release Date: 1 August 2012

Features

1. Added ability set General Purpose Outputs to be activated when a message is played. Up to 8 outputs may be set when creating a message in Content Studio. This corresponds to a manufacturer specific tag in the MULTI string for the message.



Fixes

1. Minor upgrade from earlier versions will correctly update the client configuration files with the name of the remote server. Previously required running the Remote Server Configuration utility again.

Vanguard Professional

Version: 4.8.2

Release Date: 9 May 2012

Fixes

1. Scenarios no longer include the enable flag. Scenarios will run based on scheduling properties. If a scenario is not desired to run, set scheduling to none.
2. Clip Art images have been improved and cleaned up to match MUTCD colors. More sizes have been added, and all images are now in PNG file format to allow for transparency. Images are located in the [ProgramFiles]\Daktronics\Vanguard\V4\Clip Art\ folder on install.



3. Improved connection timeout period on PMPP when network failed due to disposed connection failures.

Vanguard Professional

Version: 4.8.1

Release Date: 19 April 2012

Fixes

1. Task progress indicator stops when the server is stopped.

was disposed.

2. Improved PMPP communication to not crash the server if the connection

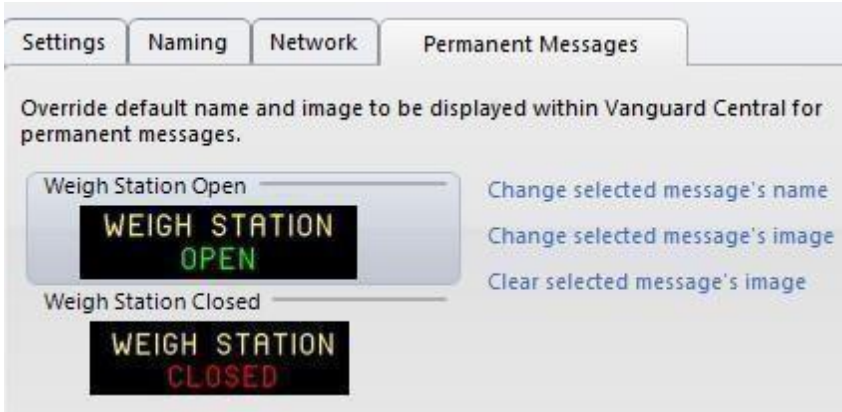
Vanguard Professional

Version: 4.8.0

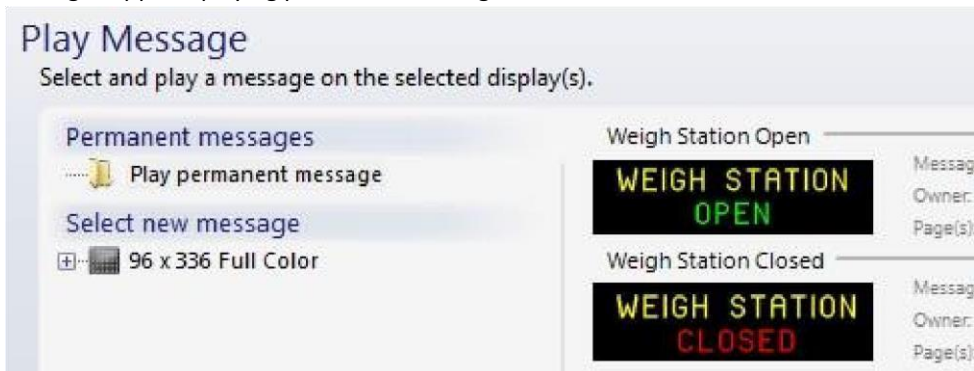
Release Date: 2 April 2012

Features

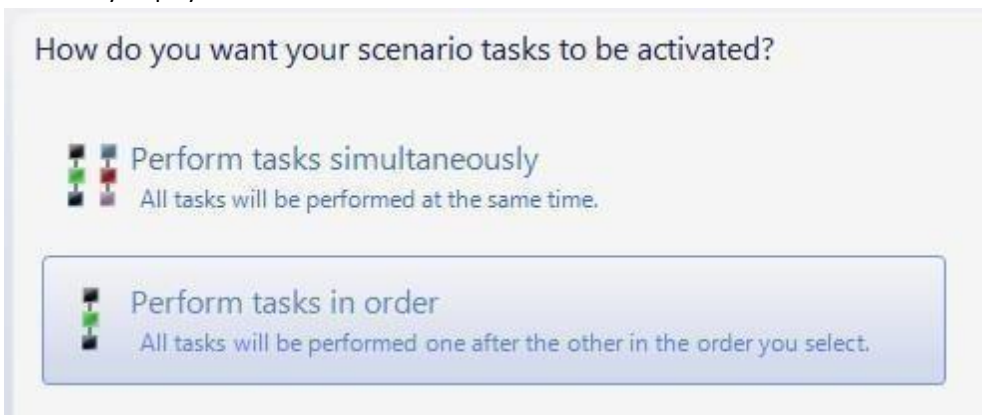
1. Added support for naming and applying images to permanent message names. A user can customize the view for any permanent message names in case a MULTI string or rendering is not available.



2. Display Monitor sorts displays by display name and is no longer sorted in order that displays were created and added to system.
3. Play Message supports playing permanent messages from main view.



4. Scenarios support play in order mode configuration. When creating a new scenario, a user is given option to play tasks simultaneously or play tasks in order.



Fixes

1. Display Monitor can correctly add displays by group.
2. Scenarios can correctly save Run Message with a permanent message.
3. Scenarios no longer stop the server if a scenario is running tasks for a deleted display.
4. Scenarios will skip over deleted messages or schedules instead of failing completely.
5. Module temperature map correctly shows values when module temperature is less than 0°C. Actual values are shown in tooltips.
6. Scenarios are automatically enabled when setting to any scheduled mode. Previously, scenarios had to be manually activated.
7. Fix problem with serial communications that does not require Idle Disconnect timeout to 0.
8. Fix problem with serial communications and hardware address that did not force a disconnect between display connections. This required serial port and multiple displays on same COM port.

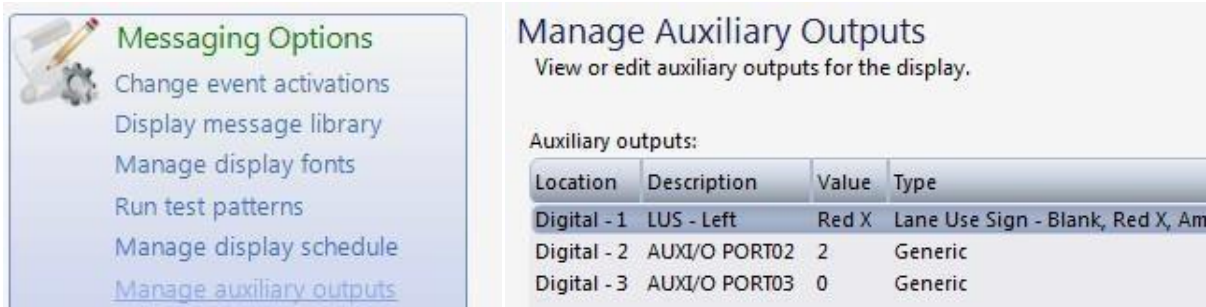
Vanguard Professional

Version: 4.7.0

Release Date: 4 January 2012

Features

1. Added support for Auxiliary Outputs. Attached devices can be controlled through the Display Control Interface and Scenarios. This functionality will require hardware attached to the sign and requires Firmware v1.8.3936.26 or higher. An example of this control would be a lane use signal.



Location	Description	Value	Type
Digital - 1	LUS - Left	Red X	Lane Use Sign - Blank, Red X, Am
Digital - 2	AUXI/O PORT02	2	Generic
Digital - 3	AUXI/O PORT03	0	Generic

2. The error for Daktronics Diagnostics Bitmaps is now suppressed from display in the User Interface. A new feature was added to VFC3000 to report pixel errors within a bitmap to Central software, and this error can be prevented by upgrading VFC3000 firmware to version 1.8.xxx or newer.



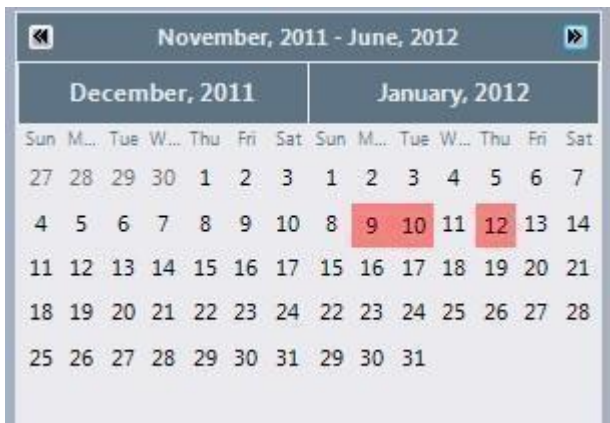
3. Create a new day plan from an existing day plan (copy) in Schedule Studio. Right click on an existing Day Plan to create a copy of the Day Plan.



4. Select individual days when creating a day plan in Schedule Studio. This view is seen when editing a Day Plan.



- Calendar show days on which the day plan is active in the color associated with that day plan. The view is seen when editing a Day Plan.



Fixes

- Log entries have been cleaned up. The server no longer logs Get Status operations and duplicate log entries (Ex: Message Save, Failed to Connect) have been fixed to only log it once per user command.
- Diagnostics entries include analog table results for non-Daktronics NTCIP profiles.
- Licensing Lock Codes have been updated to improve licensing support on virtual server environments.
- No longer get an error when trying to add more than 20 messages in Display Control Panel.
- Selecting a day plan in Schedule Studio's calendar view instead of empty space in the day now refreshes the day plan details view.
- Character spacing is now correctly ignored for the last character on a line to allow the text to fit the full width of the display.
- Error opening a saved message that had scrolling text larger than the display width.

Create a new day plan from an existing day plan (copy) in Schedule Studio.

- Select individual days when creating a day plan in Schedule Studio.

- Calendar show days on which the day plan is active in the color associated with that day plan.

Fixes

- Selecting a day plan in Schedule Studio’s calendar view instead of empty space in the day now refreshes the day plan details view.

Vanguard Professional

Version: 4.6.1

Release Date: 10 October 2011

Fixes

- Character spacing is now correctly ignored for the last character on a line to allow the text to fit the full width of the display.
- Error opening a saved message that had scrolling text larger than the display width.

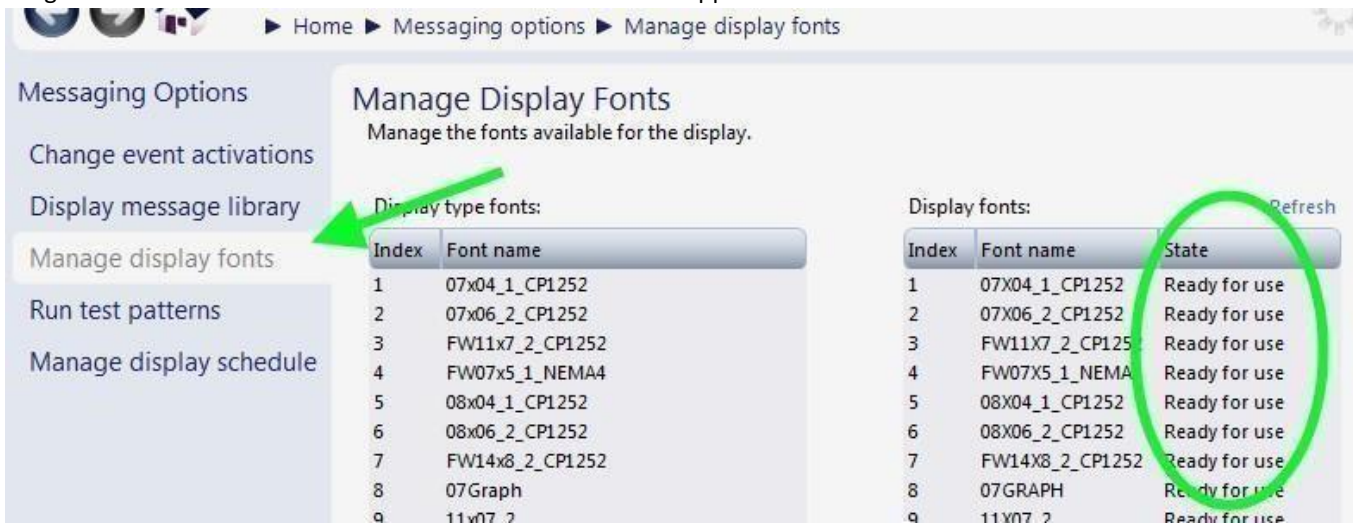
Vanguard Professional

Version: 4.6.0

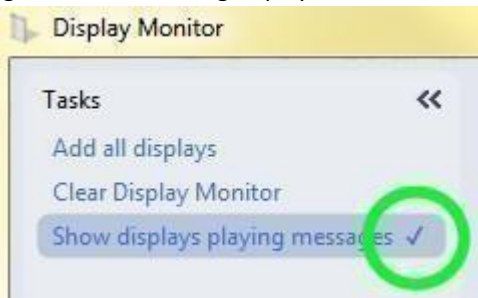
Release Date: 29 August 2011

Features

- Display font management shows the NTCIP 1203 v2 font status values when supported.



- Display Monitor will show and hide displays when “Show displays running messages” is checked and a display changes from playing messages to/from blanking display.

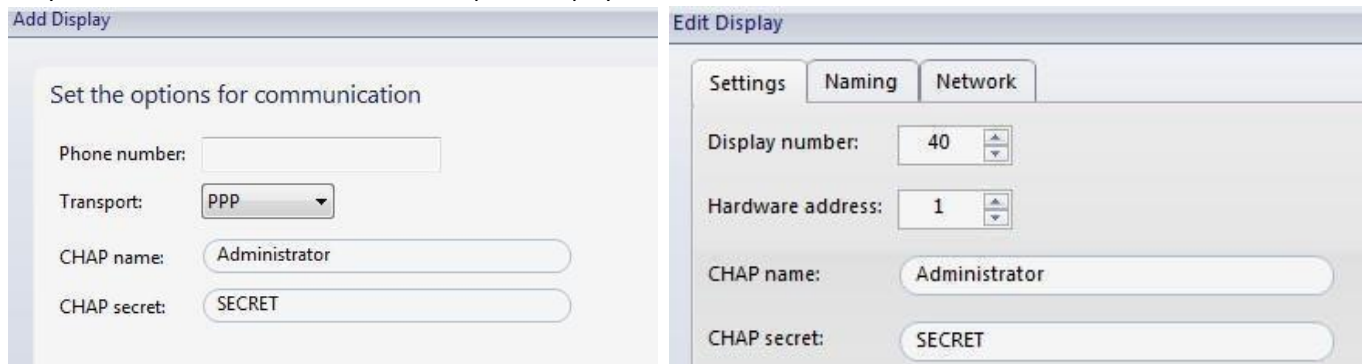


Features

- 1.
3. The List View sorting is retained when Vanguard is closed and is reapplied when reopening Vanguard.
4. Get Status successful requests are no longer added to log file. This prevents logging of large amounts of data especially during polling scenarios.
5. Schedule Studio defaults the Month of Year recurrence to not check all months by default.



6. Added ability to set CHAP name and secret for dialup PPP displays.



7. Scenarios permission rights are now set to Standard Users instead of Power Users.
8. Improved diagnostics results to include peripheral number, e.g. Power Supply 01, Power Supply 02.
9. Added new server fonts: 24x17_4_CP1252, 24x19_5_CP1252, 24x21_7_CP1252, 32x25_5_CP1252, 32x28_9_CP1252, and 32x22_4_CP1252.
10. Vanguard Configuration Utility added support for configuring VM displays.

Fixes

1. The server correctly handles displays that do not support blank message type. This related to older displays and early NTCIP support.
2. When playing a message, the server will only blank the display if the currently running message has a NTCIP v2 graphic object in message. Previously this was done every time.
3. STMF sequences are safely decoded when length exceeds the expected amount in certain situations.
4. The NTCIP Profile community name is correctly used from configured setting.
5. Fixed PPP connection error when communicating to Daktronics' Generation I controller.
6. Improved handling of various communication drops and recovery from the drops. Cellular IP networks will be primary benefactor.
7. Activating message commands only request activate message error when a general error is received from the activation packet.
8. Improved SNMP exception handling during unexpected states in situations with non-Daktronics displays.
9. The view temperatures operations work on non-Daktronics signs.

10. Removed fault contract that caused code generation issue with certain SOAP toolkits (SDK).
11. Text boxes in Content Studio are now sized exactly to text size and no longer include spacing after last character.
12. Quick Message for Character and Line based display types no longer specify a new line spacing value.

Vanguard Professional**Version: 4.5.4****Release Date: 11 August 2011****Fixes**

1. Quick Message for Character and Line based display types no longer specify a new line spacing value.
2. When playing a message, the server will only blank the display if the currently running message has a NTCIP v2 graphic object in message. Previously this was done every time.
3. STMF sequences are safely decoded when length exceeds the expected amount in certain situations.

4.5.3**14 July 2011**

Added ability to set CHAP name and secret for dialup PPP displays.

Fixes

1. The NTCIP Profile community name is correctly used from configured setting.
2. Fixed PPP connection error when communicating to Daktronics' Generation I controller.

Vanguard Professional**Version: 4.5.2****Release Date: 24 June 2011****Features**

1. Added new server fonts: 24x17_4_CP1252, 24x19_5_CP1252, 24x21_7_CP1252, 32x25_5_CP1252, 32x28_9_CP1252, and 32x22_4_CP1252.

Fixes

1. Improved handling of various communication drops and recovery from the drops. Cellular IP networks will be primary benefactor.
2. Activating message commands only request activate message error when a general error is received from the activation packet.
3. Improved SNMP exception handling during unexpected states in situations with non-Daktronics displays.
4. The view temperatures operations work on non-Daktronics signs.

Vanguard Professional**Version: 4.5.1****Release Date: 31 May 2011**

Vanguard Professional**Version:****Release Date:****Features**

1.

Features

1. Vanguard Configuration Utility added support for configuring VM displays.

Fixes

1. Removed fault contract that caused code generation issue with certain SOAP toolkits (SDK).
-

Vanguard Professional**Version:** 4.5.0**Release Date:** 20 May 2011**Features**

1. Display types can be automatically configured based on settings of displays.
2. Displays have a display mode. The display mode can be switched between online and offline for situations such as a display may not be installed or to prevent communications for any reasons.
3. All Log Viewer columns are now adjustable by width.
4. Schedule Studio contains a Day Plan view to see details of Day Plan without need to edit it.
5. Display communication status is shown in the primary views. Communication errors will be visible for 4 hours without any successful communications.
6. Display communication status provides a quick access to recent logging errors from Display Manager.
7. Improved display group configuration for adding new displays.
8. Last used path is saved when opening files from Content Studio and Schedule Studio.
9. Additional graphics added to clip art. Available at [Program Files]\Daktronics\Vanguard\V4\Clip Art.
10. Added operations for SDK users to individually get and set SNMP objects.
11. If a message exceeds the boundaries of NTCIP 1203 v2 graphic specifications, the message will be sent using Daktronics custom graphics.
12. Messages sent to monochrome displays no longer add color foreground or background tags for NTCIP 1203 v1. This was added in 4.4.1 hot fix.
13. The server logs will automatically be trimmed quarterly and when size reaches 1 GB at any given time. The trimmed log data is archived to a .CSV file on disk.
14. The SQL Database transactional history is now set to Simple mode. This prevents large transactional history files from being created when these files are unnecessary.

Fixes

1. Fixed message priority enumerations to use proper values when used by SDK integrator applications.
2. Fixed Schedule Studio to be properly visible in 120dpi settings.
3. Fixed pixel test results colors to be more distinguishable.
4. Fixed problem when editing a message and clicking on a line of text and text was not selected.
5. Send Message log event was not logging all event details.
6. The activation IP address is now set properly when an IPv6 address is present.
7. Fixed a problem when retrieving pixel tests that would not report errors in rare situations.

8. Server Log Viewer's close button functions correctly.

Vanguard Professional**Version: 4.4.1****Release Date: 8 April 2011****Features**

1. Messages sent to monochrome displays no longer add color foreground or background tags for NTCIP 1203 v1.

Fixes

1. Fixed message priority enumerations to use proper values when used by SDK integrator applications.
-

Vanguard Professional**Version: 4.4.0****Release Date: 10 February 2011****Features**

1. Pixel by pixel editing improvements for shape drawing and pixel by pixel manipulation.
2. Imported images are scaled accurately to the display type's pixel dimensions. Improvement affects scaling down imported images from larger sizes.
3. Added Manage Display Schedule page to view and manage schedules.
4. Added ability to select only a portion that fits the display's dimensions when importing an image.
5. Added new font 10x06_2_CP1252 to server fonts.
6. Added Content Studio Tips section in help documentation.

Fixes

1. Font properties are no longer reset in situations involving blank lines when creating messages for line and character display types.
2. Page off time correctly saves in situations where it was changed multiple times and back to less than one second.
3. Message editor and previewer show colors correctly for tri-color displays.
4. Can select the best fit option in zoom window for small display types.
5. Quick messages correctly use the message priority set for the display type's defaults.
6. Message owner when running a message from a scheduled scenario will now show as "Scheduled Scenario". If the message already exists on the display then it will retain its original owner.
7. Display communication indicator no longer continuously runs after completion in specific situations.
8. Fixed context sensitive help (F1) for various parts of the application.
9. Brightness level is properly saved to database after setting the value.

Features

- 1.
10. Message thumbnails are correctly created when converting from version 3 database.

4.3.0

14 December 2010

- Version information in about box will now show product version instead of file version.
2. Added new images to clip art collection and improved folder layout.
 3. Added 20x12_3_CP1252 and FW16x9_CP1252 fonts to server fonts.
 4. Added configurable foreground color to text.
 5. Added support for transparency color when sending messages.
 6. Added a cursor button with pixel editing tools.
 7. Added ability to specify line spacing values greater than 10.
 8. Added ability to move a text box or graphic from behind another text box or graphic while pressing the shift key.
 9. Changed diagnostic test results to show textual value instead of numeric values.
 10. Added feedback during loading of list of displays in the main window.
 11. Added ability to sort columns in list views.
 12. For NTCIP v2 messages, the server will minimize the graphic usage and utilize text rectangles when possible. NOTE: NTCIP v1 will still combine frame into a single image and is only supported on Daktronics displays.
 13. Changes to Nucleus Server.exe.config are now persisted between upgrades.
 14. Added MULTI string to log entry when sending messages.

Fixes

1. Fixed problem that would not check message priority when messages were activated.
2. Server events will now work if user has the log in screen open for more than 10 minutes.
3. Removing highlight color no longer causes the background to show as white during previewing.
4. Error message when attempting to send too large of a NTCIP v2 graphic is improved.
5. Tab order was corrected for controls within configuration wizards.
6. Improved error message during log in when WCF services failed to load.
7. Validation no longer shows an error when changing day plan recurrence with no changes.
8. Remove Server Configuration utility now shows correctly with large DPI settings.
9. Fixed a rare problem where wrong font is specified in a text box of a graphic layout.
10. Fixed a rare problem where new connections to displays fail.
11. Sending a font with NTCIP v2 will no longer result in a blank font.
12. Controller graphics are set to 'not used' if an existing message is replaced to keep controller memory free.
13. Retrieving legibility threshold is now possible prior to the initial setting of the value.

14. Log Viewer no longer prompts for credentials a second time if password contains special characters.
15. Log Viewer now will export the full query and not just the current page.

Vanguard Professional**Version: 4.2.1****Release Date: 30 August 2010****Fixes**

1. Remote Server Configuration utility now prompts for elevation on Windows Vista, 7, and Server 2008.
2. NTCIP v2 graphic tags now include CRC value to ensure specific graphic in addition to graphic index.
3. NTCIP v2 graphic entries now set to not used when removing a message from a display's message list.
4. NTCIP v2 graphic entries no longer use graphic slots that are in use.
5. Diagnostic bitmaps for a message with several graphic pages now properly waits for all pages to be rendered.
6. Synchronizing fonts with a NTCIP v2 display now compares height in addition to CRC and follows the state machine for removal of fonts.
7. Message thumbnails now properly generate if the message originated from a source other than the server and contains a NTCIP v2 graphic tag with a CRC value.
8. Enabling a test pattern prior to ever getting status for a display no longer shows as an error.
9. Message list representation within server no longer gets cleared in certain situations.

Vanguard Professional**Version: 4.2.0****Release Date: 6 July 2010****Features**

1. Added context sensitive help using the F1 key and manual.
2. Added email notifications for diagnostics, pixel test, and scenario results.
3. Added module temperature view to monitor temperatures across the display face.
4. Added warning while logging into Central and server is not available.
5. Improved day plan reoccurrence support with more options in Schedule Studio.
6. Enabled character matrix line justification support.
7. Added import for data scope files within Data Scope.
8. Added email notification service.
9. Enhanced logging details for configuration changes.
10. Enhanced real time diagnostics retrieval for Daktronics displays.

Fixes

1. Fixed bug if window opened outside of screen resolution then will relocate the window position.
2. Previewer is now similar size as editing area in Content Studio.
3. Changed the group selection color when switching groups.

4 May 2010

Vanguard Professional

Version:

Release Date:

Features

Vanguard Professional

Version: 4.1.4

Fixes

1. Sending schedules now allow for the same message twice in a day plan.
-

29 April 2010

Release Date:

Vanguard Professional

Version: 4.1.3

Fixes

1. Blank commands are now correctly positioned in the schedule.
 2. Before sending a schedule will now ensure refresh display message list.
-

Vanguard Professional Version: 4.1.2

Release Date: 15 April 2010

Fixes

1. Fixed issue of not including graphics when sending messages to specific locations or schedules.
 4. Fixed bug when sending message to display, the message name was not correctly set resulting in no name in Display Control Panel view.
 5. Changed pixel test (only NTCIP 1203 v2) to correctly retrieve the pixel failure count.
 6. Removed inter-character timeout.
 7. Fixed bug when sending a message a second time, it would resend the entire message instead of verifying it already existed.
-

Vanguard Professional

Version: 4.1.1

Release Date: 7 March 2010

Fixes

1. Fixed communication failure due to remote dropping the connection, thus causing a server restart to resolve.
-

Vanguard Professional

Version: 4.1.0

Release Date: 17 February 2010

Features

1. Support for upgrades which does not require uninstall first.
2. Scenarios for joining multiple display operations into a single command.
3. Right click menu in the list view for display operations.
4. Auto-sizing mode for text boxes with graphic layouts.
5. Ability to open and save messages to/from system folders.
6. Ability to refresh and remove dialup modems.
7. Utility to change remote server. Located in [Program Files]Daktronics\Vanguard\V4
8. Support for 120 DPI display setting.
9. Automatic support for light communications (smaller packet size) if packet failure occurs.
10. Task progress steps when sending graphics during message send.
11. Updated Daktronics NTCIP profiles.

Fixes

1. Character spacing is now ignored for last character on a line allowing a full line of text.
2. Lines of text no longer shift when cursor changes between lines with a full message.
3. Multiple error messages no longer displayed when creating text boxes too small to fit text.
4. Blank lines now persist custom line spacing.
5. Improved error message if a user opens a message that is being edited by another user.
6. Improved text legibility of error message banner.
7. VM display types now have default fonts.
8. User cannot paste more than 6 pages in Content Studio.
9. Fixed modem resource failures and failing to disconnect. Using improper Windows drivers for modems increases failure rate.

Vanguard Professional

Version: 4.0.1

Release Date: 10 December 2009

Features

1. Trial version information now shown in application's title.

Fixes

1. Network install no longer prompts for setup password up to 3 times.
2. Font files no longer install to the root folder (c:\).
3. Improved error messages for situations when firewall configuration needed.
4. Improved sending message sequence to allow for larger MULTI string lengths.

Vanguard Professional

Version:

Release Date:

Features

1.

Vanguard Professional

Version: 4.0.0

Release Date: 16 November 2009

<http://www.daktronics.com/ProductsServices/Products/Software-Controllers/dms-softwarecontrollers/vanguardv4controlsoftware/Pages/default.aspx>