Welcome to the DashBoard v9.8.0 Release Notes. Please read this document to find important information on areas of DashBoard that may not be covered in the User Guide or the User Help system.

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UPGRADE CONSIDERATIONS

The latest DashBoard upgrade considerations and important notices are listed below.

**IMPORTANT NOTICE for CUSTOMERS with ROSS VIDEO SERVERS**

**Known Issue:** This issue affects customers that are currently running DashBoard directly on the Tria, Kiva, or Mira hardware. If you are operating a DashBoard CustomPanel that includes active video panes that are supplied by a Tria, Kiva, or Mira branded Video Server product:

- DashBoard 9.5 and later has a known issue that disables active video panes when running directly on the Tria, Kiva, or Mira hardware.
- **Workaround:** DashBoard 9.4.1 does not have this issue and should be used when rendering active video panes in DashBoard CustomPanels, when DashBoard is running on Tria, Kiva, or Mira hardware.

We’re working to update Tria, Kiva, and Mira to stay current with DashBoard releases.

**DEPENDENCY REQUIREMENT FOR 64-BIT WINDOWS**

- If you are using the `<browser/>` tag on DashBoard running on a 64-bit Windows operating system, Microsoft’s WebView2 Runtime must be present on the system. If it is not already installed, download it from the following link: [https://developer.microsoft.com/en-us/microsoft-edge/webview2/](https://developer.microsoft.com/en-us/microsoft-edge/webview2/)

**SUPPORT FOR 32-BIT OPERATING SYSTEMS**

- DashBoard 9.5 and later will no longer be distributed on 32-bit operating systems.

**ROLE-BASED ACCESS CONTROL REQUIREMENTS**

- If you are using an RPM Server that is secured with HTTPS, future DashBoard upgrades will require manually adding the RPM Server certificate to DashBoard after the installation process is complete. The upgrade procedure can be found in the DashBoard Role-Based Access Control Guide (85100DR-09A-xxx).

- **Note:** For other considerations see the DashBoard User Guide > System Requirements section.
VERSION HISTORY

VERSION 9.8.0 – DECEMBER 2023

WHAT’S NEW

- **CONTEXT MENU AVAILABLE FOR JX BROWSER**
  Added a context menu that appears when a JxBrowser element widget is right clicked. The context menu allows you to navigate backwards and forwards, refresh the page, and access dev-tools through the Inspect option.

- **MANUALLY ADD CATENA DEVICES TO THE BASIC TREE VIEW**
  Added the ability to manually add a Catena device to the Basic Tree View.

- **SUPPORT FOR SETTING THE PORT FOR PTZ CAMERA ON ULTRITOUCH MODE**
  Added the ability to set the port for PTZ cameras on Ultritouch mode.

- **OTHER ENHANCEMENTS**
  - Updated JxBrowser binaries used.
  - Updated ogScript palette to include all available ogScript functions.
  - Right clicking an element while in PanelBuilder Edit Mode now allows you to delete the selected element.

- **PTZ CAMERA CONTROLLER ENHANCEMENTS**

  **Support for Canon CR-X300**
  The PTZ Camera Controller in DashBoard now supports the Canon CR-X300 camera. The CR-X300 controller includes all the features included in the Canon CR-N300 and CR-N500 camera controllers added in DashBoard 9.5, but also adds support for the camera wiper functionality. Wiper control is available on the Presets and PTZ pages of the UI.

  To control the camera wiper from DashBoard, it is necessary to configure an HTTP connection to the camera in addition to the VISCA connection. Once you have added the camera, go to the Config->Camera page to configure the HTTP connection, and enable wiper control.

  **Support Confirm Control Takeover in SmartShell 6.1a**
  SmartShell 6.1a includes a new feature to show a dialog prompt before taking control of a robot from another client. This release upgrades the Furio Gateway for PTZ Camera Control to enable the Confirm Control Takeover feature to be used when controlling PTZ cameras from SmartShell. Changes add the ability to support station names and to request, rather than force, takeover of joystick control.
Set port when adding a Panasonic AW-UE150 Camera

The Add New Camera wizard for the Panasonic AW-UE150 now offers an option to set a port other than 80. The port selected must match the port configured on the camera itself. Note that it is not possible to change the port for a camera already added to DashBoard – the camera must be removed and re-added with the new port. Contact Ross technical support for assistance with transferring presets and other camera settings when removing and re-adding a camera to change the port.

Additional paint parameters for Sony BRC-X1000

Extra paint parameters have been added to the Sony BRC-X1000 camera controller for use in custom panels. These parameters are not exposed in the PTZ Camera UI.

BUGS ADDRESSED

DASHBOARD

- Fixed an issue where INT CHOICE parameters using a Combo Box would allow invalid text to be entered. (DASH-4660)
- Fixed an issue where the Browser Type dropdown menu in inset ABS components would not close properly. (DASH-4642)
- Fixed an issue where selecting JavaFX in the DashBoard preferences or for a <browser/> tag would result in the incorrect browser being used on Windows and MacOS. (DASH-4639)
- Fixed an issue where OGP Binary devices would create duplicate constraint objects. (DASH-4629)
- Fixed an issue where the prompt to automatically restart would not appear when changing JxBrowser preferences. (DASH-4628)
- Fixed an issue where the scroll pane was not functioning correctly in Touch Mode. (DASH-4609)
- Fixed an issue where resizing a scrollable browser panel would leave the browser component outside of the DashBoard window on Mac OS X. (DASH-4586)
- Fixed an issue where having multiple JavaFX browsers open could cause an SWT exception when closing DashBoard. (DASH-4583)
- Fixed an issue where the New TCP/IP DashBoard Connect/openGear Device wizard would not display all the text. (DASH-4532)
- Fixed an issue where sliders in the Table Cell Attributes tab would not have transparent backgrounds. (DASH-2929)
- Fixed an issue where the Background Alignment of a component would incorrectly display as Top/Right when selected as Bottom/Right. (DASH-2576)
CAMERA MOTION SYSTEMS

- Iris control through the Furio Gateway was previously inverted, so that it did not work with the default configuration in SmartShell. This has now been corrected and the default SmartShell configuration will now work with PTZ Cameras controlled through the Furio gateway. Customers upgrading from earlier versions of DashBoard, who may have already reconfigured SmartShell to compensate for the iris axis inversion, can use the **Invert Iris** button in the Furio Gateway configuration page in DashBoard to revert to behavior in DashBoard 9.7 and earlier. (CI-789)

- The PTZ Camera Config->Operation page now limits the **Number of Presets on Camera** setting so that it cannot be increased above the number of presets that can be stored on the camera. Previously a higher number could be set, which would have caused presets to fail to recall when set to Recall from Camera. **Number of Presets on Camera** can still be set to a value lower than the number of presets that can be stored on the camera to limit the number of DashBoard presets that are linked to camera storage. The **DFLT** button will now reset **Number of Presets on Camera** to the number supported by the camera. (CI-788)

- The AE level slider on the paint page of the Sony ILME-FR7 controller has been greyed out to make it clearer that it is read-only. AE level can be controlled using the up/down buttons, but not the slider, which indicates where the current setting sits within the available range of values. (CI-801)
WHAT’S NEW

• **NEW CUSTOMPANEL TEMPLATE (SIDESHOT NG) FOR SHOTBOXUI**
  Added an option to create a new CustonPanel File with a 4x8 grid of push buttons as a preset template. These buttons can be used as a placeholder and can be replaced with whatever suits your needs.

• **NEW ATTRIBUTES TO EXPLICITLY SET BROWSER ENGINE IN <BROWSER/> TAGS**
  Added two new browser attributes.
  - The **Type** attribute allows you to select the browser engine that is used.
  - The **Fallback** attribute allows you to enable browser fallback, which will result in a fallback browser type being used if the selected browser type is unsupported.

• **VISUAL LOGIC NOW SUPPORTS TESSERA COMMANDS**
  Added ability for Visual Logic to support Tessera commands.

• **PTZ CAMERA CONTROLLER ENHANCEMENTS**
  **Support for Sony ILME-FR7**
  - The PTZ Camera Controller in DashBoard now supports Sony ILME-FR7 cameras, including the following features:
    - Store and recall of presets both locally from DashBoard storage and from camera storage (note that when using DashBoard storage, only pan, tilt, zoom and focus will be stored and recalled)
    - Direct control of pan, tilt, zoom and focus
    - Basic paint control, such as:
      - Iris can be opened and closed, but position cannot be viewed or set directly
      - Gain and shutter can be switched between automatic and manual mode, but cannot be set or viewed through DashBoard
      - Full control of ND filter
      - Set white balance mode and adjust red gain, blue gain and color temperature
- VISCA gateway to enable control of a Sony ILME-FR7 camera from a serial VISCA controller such as Carbonite
- Furio gateway to enable control of a Sony ILME-FR7 camera from a controller using the Furio API, such as SmartShell
- Integration with DashBoard tally service to monitor and display the camera tally state

**Blind Recall of presets not stored in DashBoard**

An option for **Blind Shot Recall** has been introduced on all supported PTZ camera models. When enabled, DashBoard allows recall of presets from the camera when no data is stored in DashBoard local storage. Note that if no data is stored for the preset on the camera, recall will fail silently.

This option can be found in the **Operation** tab of the **Config** page.

**Store Presets on Camera**

The **Manage Presets on Camera** setting has been renamed to **Store Presets on Camera** but is functionally the same.

**Indication when presets will be stored or recalled from camera storage**

The presets page of the PTZ Camera Controller for all camera models has been enhanced to indicate which presets are linked to presets stored on the camera, and when storing and recalling will use camera storage.

- In **panel** mode
  - Store button text will change to **Store on Camera** to indicate when a preset will be stored both on the camera and locally.
  - Recall button text will change to **Recall From Camera** to indicate a preset will be recalled from camera storage.
  - Shading indicates presets that currently don't have data stored in DashBoard but are linked to camera storage.

- In **shotbox** mode
  - In **Recall** mode, purple shading will indicate any presets with no data stored locally where **Blind Shot Recall** from camera is available.
  - In **Store** mode, yellow shading will indicate any presets with no data stored locally, where storing will cause data to be stored on camera as well as locally.

**Color temperature slider for Panasonic AW-UE150**

The PTZ Camera Controller for the Panasonic AW-UE150 now includes a slider to set the color temperature of the camera when it is in VAR mode.
BUGS ADDRESSED

DASHBOARD

- Fixed an issue where tree popups appeared to have a border when the background colour was set. (DASH-2973)
- Fixed an issue where a duplicate API block named Fast Move was appearing for CamBots. (DASH-3050)
- Fixed an issue where dragging and dropping tree items on to a web page was crashing DashBoard on Linux. (DASH-3496)
- Fixed an issue where users were unable to delete components if there was an embedded component on a custom panel. (DASH-4063)
- Fixed an issue where jxBrowser widgets were not rendering in the proper location after the URL was changed. (DASH-4479)
- Fixed an issue with the On Screen Keyboard where hitting enter added a space. (DASH-4498)
- Fixed an issue where modified data from an Ultritouch would not stream back to DashBoard. (DASH-4528)
- Fixed an issue where editing a CustomPanel hosted on a network drive would result in slow performance. (DASH-4553)
- Fixed an issue where joystick controls could not handle constraint updates without a rebuild. (DASH-4555)
- Fixed an issue where updating range constraints on parameters being displayed as text would trigger an unnecessary rebuild. (DASH-4576)
- Upgraded the JxBrowser library to utilize Chromium v117 to resolve a security vulnerability. (DASH-4603)

THINGS TO NOTE

- DASHBOARD USER GUIDE MISMATCH
  The DashBoard User Guide (8351DR-004-9.7) indicates that when changes are made to browser preferences, the user will be prompted to automatically restart DashBoard. As of DashBoard 9.7, the user is required to manually restart DashBoard to apply any changes made to browser preferences

- JAVAFX SELECTION ISSUE
  Selecting JavaFX as the browser implementation in DashBoard preferences or directly in the <browser/> tag returns the incorrect browser type on Windows and MacOS. Use of this option should be avoided in DashBoard 9.7.0. (DASH-4639)
VERSION 9.6.1 – JULY 2023

BUGS ADDRESSED

- Fixed an issue where upgrading to DashBoard 9.6 causes DashBoard to malfunction on certain TouchDrive panels until a restart is performed. (DASH-4467)
- Fixed a resource leak that occurs when alarm parameters are used in tables. (DASH-4453)
- Fixed an issue where an Ultrix UI drop down list could not be closed. (DASH-4499)

VERSION 9.6.0 – JUNE 2023

WHAT’S NEW

- JX BROWSER SUPPORT
  Support for JxBrowser, a modern browser widget, was added to DashBoard 9.6.

- CUSTOMPANEL RECOVERY MODE
  DashBoard 9.6 is now equipped with the ability to recover unsaved CustomPanel files if DashBoard quits unexpectedly.

  Whenever changes are made to a CustomPanel file, they are automatically saved to a .bak file alongside the original CustomPanel file. When the CustomPanel file is saved, the .bak file is automatically deleted.

  When you enter edit mode for a CustomPanel file with an associated .bak file, DashBoard will enter CustomPanel recovery mode. You can choose to restore the unsaved changes, save the .bak file as a new CustomPanel, or discard the .bak file.

- NEW CUSTOMPANEL TEMPLATE FOR ULTRITOUCH-2-HR
  Added an option to create a new CustomPanel File with the Ultritouch-2-HR panel as a preset template.

- SUPPORT FOR ADDING PTZ CAMERA TO DASHBOARD ON ULTRITOUCH MODE
  You are now able to add PTZ cameras directly to DashBoard on Ultritouch mode.

- PAINT FUNCTIONALITY PARAMETERS
  Added parameters to expose additional paint functionality when controlling Sony BRC-H900 and Panasonic AW-UE150 PTZ cameras. These parameters are only available for use in custom panels and are not visible through the DashBoard PTZ Camera UI pages.
• OPEN CUSTOMPANEL DIRECTORY FROM DASHBOARD
  You can now open your operating system file directory directly to the location of your
  Custom Panel file by right clicking on the directory in the DashBoard tree and selecting Open
  Directory.

• SEARCH FOR PARAMETERS VIEW
  Added a search bar in the Add Parameters window.

• EXPAND/COLLAPSE IN PARAMETERS VIEW
  Added functionality to expand and collapse the list of parameters in the Add Parameters window.

BUGS ADDRESSED

DASHBOARD
  • Fixed an issue where function blocks in visual logic were missing semicolons. (DASH-1572)
  • Added a Show Layout View icon in the Layouts menu. (DASH-2773)
  • Fixed a typo in the Advanced Tree View dropdown menu. (DASH-3069)
  • Fixed an issue where Visual Logic nodes collapsed from their expanded size to their original
    size when a value was entered in a spinner field. (DASH-4166)
  • Fixed an issue where the port entry field occasionally added commas to the port number.
    (DASH-4189)
  • Fixed an issue impacting Mac OS users, where browser widgets sometimes overlapped
    nearby panels. (DASH-4292)
  • Fixed an issue where misconfigured frame nodes caused the DashBoard tree to take a long
    time to populate. (DASH-4360)
  • Fixed an issue where adding a horizontal-slider without a label caused DashBoard to crash.
    (DASH-4393)
  • Addressed issues with the Advanced Tree Menu “Adding Subfolder” button functionality.
    (DASH-3065)
  • Fixed an issue where DashBoard tabs stopped responding after an Ultra reboot. (DASH-
    4363)
• Fixed an issue where changing the font size only changed the tree row height for parameters with choice constraints and the widget hint tree. (DASH-2964)

• Fixed an issue where using DashBoard in Turkish language mode caused horizontal and vertical slider parameters to be rendered incorrectly. (DASH-4391)

CAMERA MOTION SYSTEMS

• Fixed an issue where structured parameters were not properly cleaned up when they were deleted from a device. This could cause memory leaks which resulted in DashBoard CPU use spiking at 100% particularly when working with PTZ and PT Head camera plugins. (DASH-4439)

VERSION 9.5.3 – MARCH 2023

BUGS ADDRESSED

• Fixed an issue where upgrading to DashBoard 9.5.2 caused the TouchDrive installer to stall. (DASH-4348)

• Fixed an issue where upgrading DashBoard occasionally resulted in an unexpected error message being displayed after the first launch. (DASH-4358)

• Upgraded Apache Commons FileUpload version to 1.5 to resolve a security vulnerability. (DASH-4349)

• Fixed an issue where the Custom Colors color selector box did not appear in DashBoard versions 9.5.1 and 9.5.2. (DASH-4359)

• Addressed issues with nodes occasionally being duplicated or hidden in the advanced tree view. (DASH-4361) (DASH-4362)

VERSION 9.5.2 – MARCH 2023

WHAT’S NEW

• OGSCRIPT COMMAND TO CHECK FOR RBAC-PERMISSION
  You can now check for RBAC permission using the OGscript command `params.isDeviceReadOnly()`. With this command, you can create a custom panel that automatically checks the permissions related to the user’s role. The command can be programmatically tied into the custom panel functions, restricting or enabling access to particular functions for different roles.

• ICON SIZE PROPERTY FOR ALARMS AND COLOURED DOT PARAMETERS
  You can now set a configuration for the icon size property of alarms and coloured dot parameters using the configuration property `w.iconsize`.

• OGP-BINARY DEBUG CONSOLE IMPROVEMENTS
The OGP-Binary Debug Console now shows the device initialization progress.

**BUGS ADDRESSED**

- Optimized the Tally panel for Ultrix FR12 dimensions. (DASH-4276)
- Optimized the proxy server panel for Ultrix FR12 dimensions. (DASH-4277)
- Fixed an issue with the language selector on the Ultritouch 4RU and Ultrix FR12 where clicking outside of the language selector caused it to close and become unopenable. (DASH-4291)
- Fixed an issue where DashBoard would occasionally fail to display all tabs in the Edit Component window. (DASH-4294)
- Optimized the device panel layout for cards for Ultrix FR12 dimensions. (DASH-4278)
- Fixed an issue where the parent XPression node remained in online status after removing all XPression devices. (DASH-4310)
- Fixed an issue where a newly added XPression Device in DashBoard would automatically appear online, even if the device wasn't online or didn't exist. (DASH-4053)
- Fixed an issue which affected the RPM server on TD panel DashBoard, where selecting a role with multiple users in the RPM manager would only display the name of one user. (DASH-4320)
- Updated the “type” field in the Ultrix 12RU panel so that the panel reports itself as Ultrix. (DASH-4262)
- Fixed an issue where some product-specific logos did not appear at the top level of the DashBoard tree view. (DASH-4290)
- Fixed a typo in the Ultritouch upgrade drop down list. (DASH-4315)
- Fixed an issue where every launch of DashBoard running without a System Commands xml file would result in an incorrectly logged error for a missing command. (DASH-4325)
- Fixed an issue with DashBoard 9.5 where some international characters and languages did not display as expected. (DASH-4326)
- Made improvements to the cache clearing process for received messages, so that DashBoard only clears cached messages that are related to a recently changed OID. (DASH-4323)

**VERSION 9.5.1 – DECEMBER 2022**

**BUGS ADDRESSED**

- Fixed an issue which caused some keyboard and numpad widgets to display incorrectly on the Ultrix FR12. (DASH-4275)
- Improved the rendering time for large data tables. (DASH-4284)
• Addressed issues with running NDI on certain Windows machines without the Microsoft Visual C++ 2010 redistributable package. (DASH-4285)
• Addressed issues with start up when using the Vision[Ai]ry Control block. (DASH-4281)

VERSION 9.5.0 – NOVEMBER 2022

WHAT'S NEW

• UPDATES TO XPRESSION PLUGIN
  Added functionality that allows users to create a take item from a clip in the Create Take Item window.

• AUTOMATICALLY SAVE LAYOUT STATE SETTING
  Added an option in preferences to automatically save changes to the application state. If the Automatically Save State preference is selected, the layout state is automatically saved upon each change, ensuring that it will remain consistent if the device is shut down unexpectedly.

  A save will be triggered by:
  o Opening, resizing, or moving tabs
  o Resizing windows
  o Opening, closing, or adding folders to the file navigator view

• IMPROVEMENTS TO XML DEVICE INITIALIZATION PROCESS
  If a device is initialized through XML and fails, the device initialization process will automatically switch to an OGP device initialization process.

• JVM REPLACEMENT
  Azul Zulu has replaced the older version of the JVM.

• ADDED CUSTOM PANEL TEMPLATE FOR ULTRIX FR 12
  Added an option to create a new CustomPanel File with the Ultrix FR 12 panel as a preset template.

• SUPPORT FOR MICROSOFT EDGE
  The browser object now uses Microsoft Edge on 64-bit.

  NOTE: Internet Explorer is no longer supported.

• PTZ CAMERA ENHANCEMENTS
The PTZ Camera Controller in DashBoard now includes support for Canon CR-N300 and CR-N500 PTZ cameras, including the following features:

- Use DashBoard to store and recall presets from camera storage. **Note** that this is limited to the 100 presets available on the camera – DashBoard does not support recall of presets stored locally for the Canon PTZ cameras.
  - Direct control of pan, tilt, zoom and focus.
  - Basic paint control. **Note** that for some paint settings (for example exposure and white balance modes), DashBoard is unable to access the full range of options available in the Web UI. Shutter control from DashBoard is not supported.
  - VISCA gateway to enable control of a Canon PTZ Camera from a serial VISCA controller such as Carbonite.
  - Furio gateway to enable control of a Canon PTZ Camera from a controller using the Furio API, such as SmartShell.
  - Use DashBoard tally service to monitor and display the camera tally state.

- Added control for ND filter on the Paint page of the Sony BRC-X1000 PTZ Camera Controller.

- For all PTZ Camera types, the button to refresh the UI from the camera has been moved to the main header bar to make it more accessible. This allows the UI to be updated where camera settings are changed from a source other than DashBoard.

**PAINT SUPPORT FOR CANON C500 MkII**

DashBoard now includes a paint control page for the Canon C500 MkII cinema camera.

- Direct control of exposure and color controls on camera.
- Set and configure focus mode on the camera.
- Store and recall iris, master black and auto focus with robotic presets when robotic presets are created or edited in SmartShell. **Note** that only auto focus on/off is stored with robotic presets – the auto focus mode (continuous or AF boosted) and face tracking modes are not stored.
- Navigate camera on-screen menu.
BUGS ADDRESSED

- DASHBOARD
  - Fixed a rendering issue with script table. (DASH-4227)
  - Fixed an issue with the proxy server failing to serve certain third party OGP-Binary devices. (DASH-4226)
  - Addressed several scenarios where DashBoard would consume more memory than needed. (DASH-4223)
  - Fixed an issue where using the Advanced Tree View could cause additional nodes to be inserted into the Basic Tree View. (DASH-4216)
  - Fixed a memory leak where all JSON devices added to DashBoard were permanently retained. (DASH-4215)
  - Improved support for RBAC (Role Based Access Control) with OGP-JSON devices. (DASH-4210)
  - Addressed inconsistencies with device order in the visual logic tree view. (DASH-4207)
  - Addressed several issues with DashBoard performance when an Ultrix frame is rebooted. (DASH-4193)
  - Fixed an issue impacting Mac OS users, where popups within DashBoard would appear blank the first time they were opened. (DASH-4191)
  - Fixed an issue with incorrect support of TSL UMD 5 in DashBoard. (DASH-3460)
  - Fixed an issue that prevented certain menus from appearing when using the proxy server to share OGP-Binary devices. (DASH-4226)
  - Fixed an issue where the device communication method defaulted to full mode when an OGLML device panel was loaded in a DashBoard running touch mode. (DASH-4267)

- CAMERAS
  - Fixed an issue where creating a preset for the Panasonic AW-UE150 would fail when the gain value was less than 0dB. The camera controller now supports the full range of gain down to -3dB. (CI-727)
  - Fixed an issue where it was possible to set an invalid IP address for the UDP Direct Control Channel for the Furio Gateway to a PTZ Camera. Options are now limited to valid IP addresses for the host computer. (CI-689)
VERSION 9.4.1 – MAY 2022

BUGS ADDRESSED

- Fixed an issue impacting DashBoard customers with multiple XPression devices, where the XPression plugin was removed from the device tree when DashBoard closed. (DASH-4188)

VERSION 9.4.0 – APRIL 2022

WHAT’S NEW

- ROLE-BASED ACCESS CONTROL (RBAC)

DashBoard now provides Role-Based Access Control (RBAC) via the Ross Platform Manager (RPM) Server. RPM can sync with existing LDAP directory infrastructures, or an administrator can configure users and roles from scratch using the DashBoard interface or RPM web-browser interface. With RPM it’s easy to enforce different levels of user permissions — read, write, and/or upgrade — for various DashBoard Connect/openGear devices or panels present in DashBoard.

1) ADD RPM SERVER
2) CONFIGURE USER RIGHTS
3) CONFIGURE DEVICE PERMISSIONS

Once added, the RPM Server appears in the DashBoard Tree View. Expand it and use the Access Control node to open the Configure User Rights dialog.

The Configure User Rights dialog can be used to configure user and role permissions.

Once a role is selected, you can control access to DashBoard devices from the Permissions tab.

REQUIREMENTS:
Requires the Ross Platform Manager (v1.6+) — which includes an RPM Server — and licenses for Role-Based Access Control and LDAP Authentication (if required). Please reach out to your Ross sales representative for more details.

LIMITATIONS FOR ULTRITOUCH DEVICES:
Currently, it is recommended that you assign both read and write access permissions to roles that perform administrative actions on the Utritouch Management panel. For more details, see the Known Issues for Role-Based Access Control (RBAC).

- For more details, see the new DashBoard Role-Based Access Control Guide. It is available on the Ross Video website under the DashBoard product page’s Downloads.
TIP: You can also access the latest DashBoard guides in DashBoard, from the top menu (under Help > Help Contents).

- Notice: The deprecated User Rights Management (URM) Guide has been removed.

OGP SUBSCRIPTIONS SUPPORT (FOR OGP JSON DEVICES)
The new openGear (OGP) Subscriptions protocol is available for OGP JSON devices that have implemented Minimal Mode. This feature will help to optimize memory usage and communication, increase panel efficiency, and load device panels faster. Once implemented, device panels will only receive updates from the previously defined minimal set or the new subscriptions list of device parameter OIDs.

```
<context contexttype="opengear" objectid="MyDevice" subscriptions="true">
  <meta/>
  <subscription oids="oid1, oid2, oid3*"/>
  <meta/>
</context>
```

CUSTOMPANEL OGLML DOCUMENT SYNTAX

NEW SUBSCRIPTIONS "AUTO-SUBSCRIBE" CHECKBOXES
The DashBoard PanelBuilder editor provides convenient auto-subscribe checkboxes to simplify the process of adding device parameters to the panel's subscriptions list.

Note: When the parameters are from a device that does not support subscriptions, the checkboxes will be grayed out.

- General information on how to work with OGP devices that support subscriptions can be found in the DashBoard User Guide and CustomPanel Development Guide.
It is available on the Ross Video website (under Downloads).

**TIP:** You can also access the latest DashBoard guides in DashBoard, from the top menu (under Help > Help Contents). Use the search to jump to the “Minimal Mode” or “Subscriptions” content.

- OGP partners can find **Minimal Mode & Subscriptions** Application Notes and the **DashBoard openGear Software Development Guide** on the openGear Partner Portal.

**NOTE:** This guide contains the protocol information and is only available to openGear partners who have signed the Ross Video Non-Disclosure Agreement (NDA).

### SUPPORT FOR NDI® 5

NDI users can take advantage of the latest NDI innovations.

**IMPORTANT:** DashBoard 9.4 and later support NDI® 5, but not all video codecs are supported for NDI® |HX. Windows and Linux do not support the HEVC codec.

### SUPPORT FOR HITACHI CAMERA MODEL SK-UHD7000

This model has been added to the list of supported cameras.

### PTZ CAMERA ENHANCEMENTS

**Furio Gateway for PTZ Camera Controllers**

The Furio gateway that allows controllers using the Furio API, such as SmartShell, to control PTZ Cameras through DashBoard has a few new features:

- The value of ZoomVar reported in SmartShell for the pan and tilt axes now reflects whether the variable zoom setting on the PTZ Camera is ON (zoomVar reported as 100) or OFF (zoomVar reported as 0). For cameras that don’t support Variable Zoom and for other axes, the value will be reported as 50. This value is read only and cannot be set from SmartShell or other Furio controllers.

- The Furio Gateway now reports when the camera has moved away from a recalled preset through direct control of the pan, tilt, zoom or focus axes. This can be seen in SmartShell as a change in the border color of the last recalled preset from dark blue to light blue. This feature works only when the camera was moved by a control sent through the DashBoard PTZ Camera Controller, either directly or via a gateway.
BUGS ADDRESSED

• DASHBOARD
  o Fixed a Big Sur OSX compatibility issue where DashBoard did not always open. (DASH-3530)
  o Fixed an issue where the DashBoard Memory Manager indicator did not display the correct status after the DashBoard region and language settings were changed. (DASH-3891)
  o Fixed an Ultritouch issue with network DNS setting and retrieval. (DASH-1658)
  o Fixed an issue where the file size limitation of 16MB was not sufficient to upload larger files to openGear cards. The file size now supports file uploads up to 32MB. (DASH-3908)

• CAMERAS
  o Fixed an issue where when using Carbonite to control the iris on a PTZ-12G, PTZ-NDI, or Lumens camera through the VISCA gateway of the DashBoard PTZ Camera plugin, the iris close function appeared at the wrong end of the scale. Iris control from Carbonite now works normally. (CI-637)

VERSION 9.2.2 – DECEMBER 2021

WHAT’S NEW

• CONTROL OF ROSS PTZ-12G & PTZ-NDI CAMERAS
  The PTZ Camera Controller in DashBoard now supports the new Ross PTZ-12G and PTZ-NDI cameras. To add a PTZ camera to DashBoard, navigate to File > New > Other > Cameras and select PTZ Cameras. Select the camera from the list of available models.

The PTZ-12G and PTZ-NDI Camera Controllers within DashBoard allow you to:
  o Store, recall and manage presets — This feature provides access to the 256 stored presets available on the camera itself, as well as presets stored locally on the DashBoard computer.
- Directly control pan, tilt, zoom, focus and iris — Use the DashBoard UI or an external USB HID joystick connected to the DashBoard computer to control these settings. You can also set the digital zoom limit for the camera and store and recall it with presets stored locally in DashBoard.

- Perform basic paint control — Use the DashBoard UI or an external USB HID joystick connected to the DashBoard computer to perform basic paint control.

- View and configure selected camera settings — You can view these settings and access the camera's on-screen configuration menu.

- Use the VISCA gateway to control your PTZ camera from a VISCA over TCP controller (such as Carbonite) — You can use the gateway to directly control pan, tilt, zoom and focus as well as to store and recall presets both locally on the DashBoard machine and from on-camera storage.

- Use the Furio gateway to control your PTZ camera from a controller using the Furio API (such as SmartShell) — You can use the gateway to directly control the pan, tilt, zoom and focus on the camera as well as to store, recall and manage presets and banks.

- Use the DashBoard tally service to monitor and display the camera tally state — In addition to tally services, you can also set the tally light on the camera itself.

For more details, see the USER MANUAL FOR PTZ CAMERA CONTROL PLUGIN (8351DR-015-9.2.2).

- VISCA GATEWAY FOR PT HEAD CONTROL PLUGIN

The Ross PT Head Controller in DashBoard now includes a VISCA gateway feature. To configure and enable the gateway, select the Config option within the DashBoard control panel for the PT Head and look for the new Gateway button.

The VISCA gateway provides basic control of a Ross PT Head from a VISCA over TCP controller (such as a Carbonite). The VISCA gateway allows you to:

- Directly control pan, tilt, zoom, and focus — Control these settings directly from the PT Head of the controller.

- Store and recall presets using the external ID of the preset as the reference — Configuration settings in the gateway allow you to determine whether recalling presets through the gateway should trigger a cut or a run and to set the categories on the PT Head to use when storing and recalling presets.

For more details, see the USER MANUAL FOR PT HEAD CONTROL PLUGIN (8351DR-019-9.2.2).
• **CONTROL OF LUMENS VC-A71P & VC-A71PN CAMERAS**
  The PTZ Camera Controller in DashBoard now supports Lumens PTZ Cameras with model numbers VC-A71P and VC-A71PN. This controller offers many of the same features as the PTZ-12G & PTZ-NDI controllers, apart from a few camera settings which are not supported through VISCA by the Lumens camera. It does not include a digital zoom limit, and the variable zoom feature (to determine whether the pan & tilt velocity should vary as the zoom changes).

  **LICENSING REQUIREMENTS**
  A PTZ Camera license is required to use DashBoard to control these cameras.

**BUGS ADDRESSED**

• **PT HEAD CONTROLLER**
  - Fixed an issue where using DashBoard camera control alongside another camera controller such as Vision[Ai]ry Ft to control a PT Head would occasionally cause DashBoard to fail to gain joystick control when the **Enable Joystick** button was pressed. (CI-492)

**VERSION 9.2.1 – APRIL 2021**

**BUGS ADDRESSED**

• **DASHBOARD**
  - Fixed an issue where devices with numeric OIDs occasionally caused AutoWire to break. (DASH-3735)
  - Fixed an issue where fetching widgets occasionally caused DashBoard to become unresponsive for a minute or longer. (DASH-3771)
  - Fixed an issue where the Data Sources table rows did not each point to the correct device context. (DASH-3721)
  - Fixed an issue with toggle buttons, with a mask attribute applied, where the mask included a partial white border outline. (DASH-3327)
  - Fixed an issue where modifying parameter values while building OGLML occasionally caused DashBoard to become unresponsive. (DASH-3784)
  - Fixed a performance issue where Graphite Audio Mixers in DashBoard were impacted by memory leaks. (DASH-3751)

• **ACIDCAM AND HITACHI CAMERA CONTROLLER**
  - Fixed a tally issue where the green tally light was not working as expected. (CI-371)
WHAT'S NEW

• CONTROL OF PANASONIC AW-UE150 CAMERAS

The PTZ Camera Controller in DashBoard has been extended to add support for Panasonic AW-UE150 cameras. To add an AW-UE150 to DashBoard, navigate to File > New > Other > Cameras, and select PTZ Cameras. You can then select the Panasonic AW-UE150 from the list of available models.

The Panasonic AW-UE150 Camera Controller within DashBoard allows you to:

• Store, recall and manage presets. Presets can be stored locally on the machine running DashBoard, or using the on-camera storage.
• Directly control pan, tilt, zoom, focus and iris using the DashBoard UI or an external USB HID joystick connected to the DashBoard computer.
• Perform basic paint control using the DashBoard UI or an external USB HID joystick connected to the DashBoard computer.
• View and configure selected camera settings and access the camera’s on-screen configuration menu.
• Use the VISCA gateway to control your AW-UE150 from a VISCA over TCP controller such as Carbonite. You can use the gateway to directly control the camera and to store and recall presets both locally in DashBoard and on the camera.
• Use the Furio gateway to control your AW-UE150 from SmartShell or another controller using the Furio API. You can use the gateway to directly control the camera and to store, recall and manage presets and categories.

NOTE

• To control the Panasonic AW-UE150 from DashBoard, you must purchase a license for the PTZ Camera Control feature. Please contact Ross Technical Support for assistance.
INTEGRATION OF DASHBOARD TALLY SERVICE WITH PTZ CAMERA CONTROL
The PTZ Camera controller can now be integrated with the DashBoard tally service to:

- Monitor and display camera tally state – both on-air and preview.
- Broadcast tally status to SmartShell using the Furio gateway so that SmartShell can correctly display on-air status for PTZ Cameras controlled through DashBoard.
- Optionally set the tally light on the camera itself.
- This functionality is available for all supported PTZ Camera types – PIVOTCam-SE, Sony BRC-X1000, Sony BRC-H900 and Panasonic AW-UE150.

NOTE
- The DashBoard tally service does not currently work with the TSL5.0 protocol. To use the new PTZ Camera Tally Integration feature, you must use TSL3.1. (DASH-3103)

SUPPORT FOR SONY BRC-X1000 TELE CONVERT AND CLEAR IMAGE ZOOM FEATURES
The PTZ page for the Sony BRC-X1000 camera control now provides buttons to enable and disable the Tele Convert and Clear Image Zoom features of the camera.

PTZ CAMERA CONTROL LICENSE
The Sony BRC Camera Control feature license has now been extended to include the new Panasonic AW-UE150 camera controller and rebranded as the PTZ Camera Control license. If you have already purchased this license, you will be able to access the new Panasonic AW-UE150 camera controller with no additional licensing required. Please contact Ross Technical Support for assistance.

For more information about using DashBoard to add and control PTZ cameras, please see the User Manual for PTZ Control Plugin (8351DR-015-9.2). To download a PDF copy, go to https://www.rossvideo.com/support/product-documentation/ross-robotics/.
UPGRADE CONSIDERATIONS

- LAUNCHING DASHBOARD ON MACOS BIG SUR
  - Upgrading to macOS Big Sur, version 11.0.1 or later, is not recommended if you are running DashBoard version 9.2 or earlier. Using macOS Big Sur may cause issues when launching the DashBoard application. You can use one of the workaround methods listed below:

  To Launch DashBoard using Finder
  - Navigate to the DashBoard installation directory. Click the Finder icon in the Dock and under Applications click DashBoard.app and select Show Package Contents. Then you can navigate to the Contents > MacOS > and run PermissionDashBoard.

  To Launch DashBoard using Terminal
  - Enter this CLI command in Terminal. Note: this directory path assumes that you have installed DashBoard in the default installation directory.
    ```bash
    open /Applications/DashBoard/DashBoard.app/Contents/MacOS/PermissionDashBoard
    ```

BUGS ADDRESSED

- The camera controller for ACID and Hitachi cameras was not setting the green tally light on the camera when the DashBoard UI was displaying it as being on. This has now been resolved and green tally light should be correctly displayed on the camera. (CI-371)
- If the DashBoard PTZ Camera Controller was connecting to a camera that was mostly unresponsive, the UI would continue to show a progress bar displaying message “Reading camera settings” that would remain stuck at 99%. Behavior has now been changed so that the progress bar will now show “Waiting for camera to power on”. After 2 minutes, the progress bar will disappear and an error flag will be set so that the status of the camera is shown as “Bad – all messages to camera resulting in errors”, as shown below. If you see this error, please check the operation of your camera. For PIVOTCam-SE cameras, this can sometimes occur if the VISCA options in the On-Screen Display are incorrectly configured. (CI-278)

- When using SmartShell to control a PTZ Camera through the DashBoard Furio Gateway, the displayed focus position was not being updated when the camera focus was adjusted using either SmartShell or the DashBoard UI. This was caused by the PTZ Camera Controller failing
to request the new focus position after the focus axis had stopped moving and has now been resolved (CI-433).

- When using SmartShell to control a PTZ Camera through the DashBoard Furio Gateway, requesting a ZOOMVAR value of 0 for any axis would trigger a SmartShell error “BADDYNAMICRATIOARG”. This has now been corrected so that a value of 0 will be accepted. Note that the SmartShell ZOOMVAR function is not supported by the Furio gateway and so will have no effect on axis sensitivity. To change pan and tilt axis sensitivity as the zoom value changes, use the “Variable Zoom” option in the DashBoard camera panel (CI-434).

**VERSION 9.1.4 – OCTOBER 2020**

**BUGS ADDRESSED**

- DASHBOARD
  - Fixed several Linux and Mac OS issues where dragging and dropping actions in DashBoard’s embedded web browsers and device interface pages occasionally caused DashBoard to become unresponsive.
  (DASH-3490 | DASH-3491 | DASH-3492 | DASH-3502)

**VERSION 9.1.3 – SEPTEMBER 2020**

**BUGS ADDRESSED**

- DASHBOARD
  - Fixed a Linux issue where device interface pages created from HTML outputs did not always display navigation correctly.

**NOTE ON SUPPORTED LINUX OPERATING SYSTEMS**

The following Linux operating systems are supported for DashBoard Version 9.1.3:

- CentOS Version 7 (64 bit)
- Ubuntu 16.04.6 LTS (64 bit)
- Fedora Version 23 (32 bit)
BUGS ADDRESSED

- DASHBOARD
  - Fixed an issue where integer parameters using the Date Picker widget display type view were not displaying the correct parameter value updates. (DASH-3366 | DASH-3367)
  - Fixed an issue where OGP-JSON devices and devices shared via the Proxy Server could not use OGLML in device menus in cases where OGLML was served via external objects. (DASH-3409)
  - Fixed a Mac OS issue with the Visual Logic Editor, where attempting to add Visual Logic blocks from a device was causing a null pointer exception that prevented blocks from appearing. (DASH-3415)
  - Fixed an issue with UDP messages, where DashBoard prevented certain UDP messages from being sent. (DASH-3416)
  - Fixed an issue that prevented custom slot names from appearing when OGP frames were shared via the proxy server. (DASH-3417)
  - Fixed an issue where the Add Task option would not appear consistently when panel builders right-clicked on parameters in PanelBuilder Edit Mode. (DASH-3384).
  - Fixed an issue where the custom color defined in the <color> tag did not appear in the DashBoard Component Editor’s color palette. (DASH-3407)

- CAMERA MOTION SYSTEMS
  - Fixed an issue where activating the paint integration feature on the PT Head plugin was preventing custom panels from opening successfully. (CI-339)
WHAT’S NEW

- **WINDOWS 64-BIT VERSION OF DASHBOARD AVAILABLE**
  In addition to our Linux 64-bit and Mac OS 64-bit versions, DashBoard is now available in a Windows 64-bit version that provides a faster, and more scalable experience for users. In addition to performance improvements, this version supports devices with requirements for 64-bit only software.

  If the Windows, Mac or Linux device you are running DashBoard on features a 64-bit processor and at least 4GB of RAM, you also have the option to increase memory allocation to DashBoard using the new feature described below.

- **ABILITY TO INCREASE MEMORY ALLOCATION FOR THE 64-BIT VERSION OF DASHBOARD**
  If you are running the 64-bit version of DashBoard, you can choose the amount of memory to allocate to DashBoard. The options range from the default value, which is a minimum of 1GB, to a maximum value of half of your system’s available RAM.

  Navigate to Preferences > General to set the amount of memory. You can drag the slider to set the amount of memory available to DashBoard. The amount can only be allocated in increments of 1GB. You must restart DashBoard for the changes to take effect.

- **QUICK METHOD TO ADD TABS**
  You can now quickly add additional tabs without opening the Component Editor. In PanelBuilder Edit Mode, right-click on the blank space beside an existing tab to add another tab.

- **QUICK METHOD TO ADD TASKS TO BUTTONS, LABELS, PARAMS**
  You can now quickly add tasks to buttons, labels or parameters without opening the Component Editor. In PanelBuilder Edit Mode, right-click on a button to add a task to the selected button.
• **XPRESSION COUNTDOWN TIMER WIDGET**
The XPression Countdown widget allows you to monitor a specific framebuffer and layer of XPression to determine what take item is currently on that layer, and the amount of time left for that take item. You can access this custom widget from the **Widget** button on PanelBuilder Edit Mode toolbar.

**REQUIREMENTS**
- XPression Version 10.0 or later is required.

• **AURA THEME ENHANCEMENTS**
The Aura theme includes usability enhancements for a consistent and smooth UI experience. Includes updates to scroll bars, touch wheel and slider views, label borders, border styles, masks, device/tree view icons, file pickers, background colors, and Ultritouch color constants.

**NOTE ON AURA FIXES**
- XPression license messages now display the correct value. (DASH-2177)
- PanelBuilder Edit Mode exception errors that appeared when you switch modes have been resolved. (DASH-3118)

**CONTROL OF ROSS PAN & TILT HEADS**
There are a number of updates to the Ross Pan & Tilt Head controller first introduced in v9.0:

**External ID Management**
The Ross PT Head controller allows you to assign a numerical ID to each preset, which can be useful for automation or when creating custom panels. Version 9.1 adds several enhancements to the basic external ID functionality:

• **External ID Uniqueness:**
  DashBoard will now ensure that all external IDs assigned to presets through DashBoard are unique, enforced either by category or by device, as chosen by the operator.

• **Auto-assign**
  DashBoard can now be configured to automatically assign an external ID when a preset is created, or upon request.

• **Display offset**
  DashBoard can now be configured to offset the displayed external IDs by 1. This can be helpful when working with other systems that also offset preset IDs, such as Carbonite.
• **Preset CUT and RUN commands using external ID**
  
  New commands have been added for custom panel creators to trigger preset recalls using the external ID assigned to the preset.

**Hard Panel Control of Preset Recall**

DashBoard can now be configured to allow a Hard Panel (such as a joystick controller with assignable buttons) to control preset recalls:

- CUT, RUN or ALT button activation
- HALT a preset recall
- Adjust the run duration of the preset
- A new time mode button that allows the operator to choose whether the hard panel controls run duration prior to preset recall, or time dilation during recall

Note that hard panel control of preset recall will not work when connecting to a PT Head connection that has been shared through the proxy server; a separate connection to the PT Heads should be established from every DashBoard client that requires access to them.

**Integration of Paint Control**

If the camera mounted on your PT Head is controlled by DashBoard, you can now configure DashBoard to integrate the paint control page into the Ross PT Head UI. This will allow you to view the paint UI as a tab within the PT Head UI and to control paint parameters with a joystick pointed at the PT Head.

This feature is supported for Ross ACIDcam, Hitachi Studio cameras, Panasonic AK-HC1500/HC1800/UB300 and Sony studio cameras that support CNA-1. For Sony and Panasonic cameras, you must have a Ross Video license for the paint control page in order to integrate paint controls into the PT Head UI.

**Enable/Disable Axes using PT Head UI**

DashBoard now offers an option to expose controls to enable and disable individual axes on the PT Head. Disabling is temporary; reconnecting DashBoard will re-enable the axes.
Preset Page – Safe Mode

Both shotbox and panel modes now offer an option to deselect all actions on the preset page, so that presets cannot be recalled or modified inadvertently. DashBoard will start up in this state.

For more information about using DashBoard to add and control robotic pan & tilt heads, and the new features added in 9.1, please see the User Manual for PT Head Control (8351DR-019). To download a PDF copy of the user manual, go to https://www.rossvideo.com/products-services/acquisition-production/robotic-camera-systems/studio-robotics/, follow the Downloads link, expand the Manuals node, and select the manual.

PTZ CAMERA ICONS

A new icon is now used for PTZ Cameras in the DashBoard tree.

For more information about using DashBoard to add and control PTZ cameras, please see the User Manual for PTZ Control Plugin (8351DR-01). To download a PDF copy, go to https://www.rossvideo.com/support/product-documentation/ross-robotics/.

BUGS ADDRESSED

- DASHBOARD
  - Fixed an issue in DashBoard v9.1.0 where the DashBoard tree view did not display cached items when an HTTP request failed. (DASH-3404)
  - Fixed an issue with the installer for users running DashBoard v.9.1.0 on Mac OSX. (DASH-3406)
  - Fixed an issue with widget hint WIDGET_LINE_ONLY (6). (DASH-3401)
  - Fixed a notarization issue that required Mac OSX Catalina users to bypass Security and Privacy settings to install DashBoard. (DASH-2121)
  - Fixed an issue with the EQ Graph where replaced constraints continued to display the previous constraint's values. (DASH-2594)

- CAMERA MOTION SYSTEMS
  - Fixed a camera selection issue that occurred when you switch cameras using the joystick while UI follows selection was enabled. (DASH-2167)
  - Fixed an issue where removing a PTZ camera and then attempting to add the same device, or another device with the same IP address, back into DashBoard required a
restart of DashBoard. This has now been resolved and you can remove and re-add the same device without encountering problems. (CI-315)

- The Preset page of the DashBoard PT head plugin previously accepted run duration values that were too low to ever be operable. This has been resolved by introducing a number pad for specifying run duration values. If the value is too low, it automatically increases to the lowest potentially operable value when the number pad closes. Note that this change does not guarantee the duration will always be valid for recalling the preset. The minimum valid duration can be determined only when you are about to recall the preset, because it depends on the starting position of the head at that time. (CI-317)

- Previously, using the selector to switch joystick control to another camera while one or more joystick controls were active (for example the head was panning) would cause the first device to continue moving. This has now been corrected for both PT Head and PTZ Camera controllers. When the joystick switches to another device, all velocity controls will be reset to 0 and the first device will stop moving. (CI-328)

- Fixed an issue where SmartShell, when connecting to two or more PTZ Cameras using the DashBoard Furio Gateway, was occasionally showing a disconnection error due to a timeout on an Axis Status request. This was caused by a threading issue when formatting the motor position in the message response which has now been resolved. (CI-332)

**VERSION 9.0.2 – MAY 2020**

**BUGS ADDRESSED**

- Fixed an issue where listeners are created repeatedly for the same component. (DASH-3053)
- Fixed an issue where hovering over buttons caused a memory leak issue. (DASH-3055)
WHAT'S NEW

• **NEW AURA UI THEME**
  You can now design and build beautiful custom panels that leverage the new Aura theme, and update existing panels by launching them in DashBoard 9.0. Aura makes it easier to design stunning panels using simple two-dimensional elements and bright colors.

  ![Image of Hockey Event Control panel]

  **COMPATIBILITY NOTE**
  Blackstorm does not support the Aura theme.

• **CHANGE THEME PREFERENCES**
  Theme preferences now provides the ability to go back to the Classic theme if needed. Theme preferences are found in the **Window** menu under Preferences > **General**.

  ![Image of Theme Preferences]

  **COMPATIBILITY NOTE**
  New features developed for future versions of DashBoard will not support the Classic theme.
• **UPDATED THE COLOR PALETTE**
  The new color palette allows you to adopt a consistent color scheme for panels and saves you time by minimizing the need for style overrides. For more details on recommended usage, see the CustomPanel Development Guide.

• **EQ GRAPH**
  You can now map parameters from a device to display a parametric equalization visualization, or EQ Graph. Many custom options, such as Q values and colors, are available using config options.

• **SLIDER SUPPORTS COLOR FILL OPTION**
  The `w.fillcolor` config option option allows you to set the color fill for a slider with no label.

• **SLIDER SUPPORTS ANCHOR FILL OPTIONS**
  The `w.fillanchor` config option option allows you to set an anchor point of min, max, mid, or none for the color fill for a slider with no label.

• **DISABLE KEYBOARD AND NUMBER PAD**
  The `w.keyboard` config option option allows you to disable the keyboard or number pad that appears by default for Text Field (3) and Spinner (5) type widgets on Ultritouch panels.
• **EXTERNAL CONSTRAINTS**
The EXTERNAL_CONSTRAINT can be used to indicate that the constraint for this parameter is provided in an external object, rather than embedded within the parameter descriptor.

Syntax:
```
"constraint": {
  "type": "EXTERNAL",
  "eo": "0x05"
},
```

• **CAMERA CONTROL**
Menu options for adding a new camera to DashBoard have been reconfigured to make them clearer and to distinguish between paint control of ENG/Box cameras and control of PTZ cameras.

• **CONTROL OF ROSS PAN & TILT HEADS**
DashBoard now includes a built-in controller for Ross Pan & Tilt Heads (Note: while Furio heads can communicate with DashBoard directly, CamBot heads require the CamBot Protocol Translation software that is part of the Robotics Server to communicate with DashBoard. This software will be available for free for use with the PT head plugin).

To add a PT head in DashBoard, navigate to **File > New > Other > Robots**, and select **Ross PT Head**. The head's IP address is required.

Once connected to a PT Head, the operator can:
- Store, recall, view and manage presets stored on the head. The operator can:
  - View, add, delete, and rename categories.
  - View, add, clone, edit, update, and delete presets.
  - Perform timed recall of presets – using either the duration stored with the preset or an alternate duration set in the UI. Recall time can be dynamically altered while the preset is in progress.
  - Assign external IDs to presets for use with other control systems such as switchers or APC software. Note that DashBoard does not ensure that the assigned IDs are unique.
Directly control pan, tilt, zoom, focus, and iris axes – either through the DashBoard UI or by connecting a standard Microsoft HID-compliant USB joystick to the DashBoard computer. The operator can:

- Enable and disable joystick control.
- View axis status and position information
- Configure axes – speed, damping, and zoom-dependent sensitivity
- View axis limits. Set and clear soft limits for each axis.

In addition to providing access to all of the core functionality of the pan & tilt heads, the Dashboard controller also includes some more advanced features that make it easier to use in a variety of workflows:

- Supports both panel mode (select a preset and then select the desired action) and shotbox mode (select an action and then select the desired preset)
- Includes settings to configure the preset grid size, view, and sort options. Also includes a setting to disable the confirmation pop-up upon preset creation, applying default values to accelerate the workflow.

For more information about using DashBoard to add and control robotic pan & tilt heads, please see the User Manual for PT Head Control (8351DR-019). To download a PDF copy of the user manual, go to https://www.rossvideo.com/products-services/acquisition-production/robotic-camera-systems/studio-robotics/, follow the Downloads link, expand the Manuals node, and select the manual.

**BUGS ADDRESSED**

- Fixed an Ultritouch issue where zip files that contained the same name as a folder caused an error message to appear despite the upload occurring successfully. (DASH-2194)
- Fixed an issue where the tooltip style attribute did not work for the color chooser and color chooser pop-up widget. (DASH-2393)
VERSION 8.8.0 – DECEMBER 2019

WHAT’S NEW

• ABILITY TO DOWNLOAD CUSTOMPANELS ON ULTRITOUCH
   You can now download CustomPanels from Ultritouch on to your computer. From
   DashBoard, click Manage CustomPanel > Download from Device.

• SUPPORT FOR REBOOT FLAG ON COMMANDS ON ULTRITOUCH
   If changes are made that require a reboot, a prompt will now appear that asks the user to
   reboot. If the user doesn't reboot at the recommended prompt, then the status in the device
   tree indicates the required reboot.

• CAMERA MOTION SYSTEMS – SUPPORT FOR PIVOTCAM-SE
   DashBoard PIVOTCam-SE control offers you the ability to:
   o Store, recall and manage presets. Presets can be stored and recalled locally from
     DashBoard storage, or directly from the camera head.
   o Control cameras directly using PTZ and Paint control pages.
   o Configure your camera to:
     ▪ View camera data such as version numbers
     ▪ View and modify a selection of camera settings
     ▪ Configure SDI video output and configure and enable/disable IP streams
     ▪ Configure gateways, which allow you to control the camera from Carbonite
       or SmartShell

NOTE

• For customers who previously used the PIVOTCam Control Panel, a new PTZ Legacy
  Preset Conversion Tool is available to help transfer presets to the new DashBoard
  controller. For more information, contact Technical Support and see the document,
  "Importing Presets from Legacy Camera Panels (8351DR-018-xx)".

• If you already have PIVOTCam-SE cameras, you will need to upgrade their firmware
  in order to use them with the DashBoard plugin. For the latest firmware upgrade
  package, including upgrade instructions, see

For more information about configuring and controlling PIVOTCam-SE cameras from
DashBoard, see the User Manual for PTZ Camera Control Plugin (8351DR-015-8.8).

BUGS ADDRESSED

• Ultritouch
  o Fixed the issue with the CustomPanel list appearing empty in certain conditions.
- Fixed the Null Pointer issue when the Ultritouch was shut down without any UIs open.
- Fixed file upload issues.
- Fixed "remember connection" issues that occurred when adding a device to the DashBoard tree.
- Fixed usability issues that were causing an unintended click when trying to pan.
- Fixed the issue that permitted users to remove the DashBoard Service node.

 DashBoard
- Fixed device descriptor request issues with the minimal mode code.
- Fixed the issues saving CustomPanels that use drawers with hidden tabs.
- Fixed the issue causing panels with large touch wheels to break.
- Fixed the issue with the DashBoard application stealing focus.

VERSION 8.7.1 – OCTOBER 2019

WHAT'S NEW

- Memory Manager Indicator
  The Memory Manager (Figure 1.1) displays the current memory usage of the DashBoard instance that you are running and when memory is low it takes actions to free up memory by unloading inactive tabs, as shown in Figure 1.2. Unloaded tabs are indicated by a caret symbol in front of the name, for example "^ CustomPanel01.grid". The Memory Manager will not unload active CustomPanels or active tabs. If you have a panel that runs tasks in the background (listeners, GPI triggers, timers, and etc.), you may not want DashBoard to unload your panel. You can use the keepalive flag in the top level of the CustomPanel source code to indicate that this panel should not be unloaded. Existing CustomPanels will not be unloaded because the keepalive is enabled by default.

  Note: The memory usage shown is approximate and subject to Java's garbage collection schedule, and it may take a few moments for changes in memory consumption to be reflected in the status.
Memory Manager with a healthy status (green)

Two frames that are shown in unloaded state

If your status indicator is green, then the memory usage is within the acceptable range. The status indicator turns yellow to indicate caution, and finally escalates to red to indicate when memory usage exceeds the recommended levels.

You can disable or enable the unload feature in the DashBoard General Preferences or set your preferences at the CustomPanel level.

- **Memory Manager Tag**
  If you would like to see a memory manager indicator directly in your panel, you can add the new memory manager widget. You can also customize its size and position when you add the memory manager tag.

  In PanelBuilder Edit Mode, you can double-click on the canvas to open the Component Editor. From there you can click Source tab, and add the memory manager widget to the top level of the source code (usually an `<abs>` container). You can include attributes to modify the size and position of the memory manager status bar, as shown in the example below:

  ```xml
  <abs contexttype="opengear" id="_top" keepalive="false" style="">
    <memory height="50" left="1500" top="50" width="200"/>
  </abs>
  ```

- **Keep Alive tag**
  If you have a CustomPanel that should never be unloaded, you can set a Keep Alive flag in the Abs Attributes that will tell DashBoard not to unload this panel (even if the memory is low).

  **Note:** CustomPanels that were created in DashBoard 8.6 and earlier will not be unloaded when memory is low, because by default the Keep Alive option is enabled on CustomPanels that were built before the Memory Manager was available.

  In PanelBuilder Edit Mode, double-click on an empty area on the CustomPanel to open the Component Editor. The uppermost abs should be selected in the tree. In the Abs Attributes
tab under Remote Task Triggering, select Keep Alive. This button prevents DashBoard from unloading this CustomPanel, even when memory is low.

You can see the **Keep Alive** button below:

You can also set the keepalive attribute in the source code in the top-level `abs`. For example:

```html
<abs contexttype="opengear" id="_top" keepalive="true" style="">
  main panel content here...
</abs>
```

- **Ultritouch 4 Support**
  You can now use the Ultritouch 4 Panel template when creating a CustomPanel for the new Ultritouch 4. The template provides a 1304 x 485 pixel canvas, which is designed to fit beside the built in DashBoard navigation in the Ultritouch User Interface (UI).

- **Color Chooser now supports RGBA output format**
  You can now use the `w.format` config option to modify the Color Chooser widget. This option allows the user to set the output format for color strings to RGBA (red-green-blue-alpha) or ARGB (alpha-red-green-blue). The value can be set to rgba or argb, where argb is the default output format.
  **Tip:** You can find a list of the available config options in the Param Attributes tab > Config Options area by clicking the Help button.

- **Support for OGP Minimal Mode**
  DashBoard 8.7.1 now supports any devices that implement OGP Minimal Mode to request a minimal amount of status updates to DashBoard until the devices’ user interfaces open.
  Additionally, the DashBoard Proxy server enables OGP Minimal Mode support by default for any devices it shares.

- **New Dashboard Logo**
  DashBoard’s User Interface now features the new Dashboard logo and updated style.

- **Other Enhancements**
  - Improvements to the Color Chooser widget which now supports the use of transparency with the ogScript `setStyle()` function.
  - Improvements to Proxy Server support for Carbonite.
• **Sony Camera Control Enhancements**
  Sony camera control enhancements include the following:
  o Support for Multi-Camera Mode for Sony Cameras Connected Through a CNA-1 Adapter
  o Sony Master Control
  o PTZ Camera Control (for Sony BRC cameras)
  o Control of Sony BRC Cameras – VISCA Gateway

• **Support for Multi-Camera Mode for Sony Cameras Connected Through a CNA-1 Adapter**
  Ross Video's Sony Paint plugin for DashBoard now supports Sony's HZC-MSCN1 software upgrade for CNA-1 units. The software upgrade, available from Sony, enables you to control multiple cameras from a single CNA-1 unit.

• **When you add a supported Sony ENG/Box Camera in DashBoard, you specify one of the following two operation modes:**
  o RCP Mode — Each camera is associated with a dedicated CNA-1 Adapter. The camera control computer(s) address each camera directly through the camera's CNA-1 Adapter. RCP mode is sometimes referred to as Gateway mode.
  o MSU Mode — The system includes one or more CNA-1 adapters, upgraded to run in MSU mode (Sony upgrade HZC-MSCN1). Each CNA-1 adapter controls a group of cameras. In facilities that have a large number of cameras, deploying multiple CNA-1 adapters may improve response time, as the system queues control requests and polls the cameras for status updates. An additional Sony MSU or upgraded CNA-1 adapter is required to act as the master device on the Sony network.

If you already have cameras that are configured for previous versions of the Sony Paint plugin that are connected directly (as opposed to via proxy server), they will continue working normally after you install DashBoard v8.7.1. Cameras connected via proxy server may need to be Unshared and then Shared to re-establish connectivity. See the Known Issues section of this document for more information (CI-190).

**Note:** The Sony Paint plugin is a licensed feature of DashBoard. It must be purchased from Ross Video. For assistance with licensing, please contact Ross Video Technical Support and ask for the Sony SSP Camera Control feature.
For detailed installation and configuration instructions, see the manual, “Installation Guide for Sony Paint Control (8351DR-012-8.7)”.

- **Sony Master Control**
  In this release, the Sony Paint plugin also includes a new configuration page that enables you to view and manage your connected cameras in both RCP and MSU mode. This Master Control page can be accessed from Slot 0 of the Sony ENG/Box Cameras node in the DashBoard tree:

- **PTZ Camera Control (for Sony BRC cameras)**
  DashBoard can now be used to configure and control select Sony BRC cameras models. DashBoard's PTZ Camera Control plugin communicates with Sony cameras using VISCA protocol over IP.

  DashBoard currently supports Sony models BRC-X1000 and BRC-H900.

  Using the PTZ Camera Control plugin, you can:
  - Store, recall, and manage presets
  - Control camera pan, tilt, zoom, focus, and iris. These can also be controlled using an external joystick connected to the DashBoard computer.
  - Perform basic paint and shading.
  - View and configure camera settings, and access the camera's on-screen configuration menu.
  - Export configuration and presets to be imported later, for use with the same model of camera.

  For detailed information about how to access and use the PTZ Camera Control plugin, see the Camera Control Manual (8351DR-015-8.7).

  **Note**: The PTZ Camera Control plugin for configuration and control of select Sony BRC cameras is a licensed feature of DashBoard. It must be purchased from Ross Video. For assistance with licensing, please contact Ross Video Technical Support and ask for the Sony BRC Camera Control feature.

- **Control of Sony BRC Cameras – VISCA Gateway**
The PTZ Camera Control plugin includes a gateway that enables controllers such as Carbonite to connect to supported Sony BRC cameras using VISCA Protocol over TCP.

Once you have added a Sony BRC camera to DashBoard, you can enable the VISCA gateway by navigating to Config > Gateway, specifying a port for your VISCA gateway, and tapping Enable to connect. The VISCA Gateway control page displays the status of the gateway and how many controllers are connected to it.

The VISCA Gateway provides access to:

- Directly control pan, tilt, zoom, focus, iris, and color on the connected camera.
- Store and recall presets. You can select whether to store presets:
  - Directly on the camera (set Presets option to Camera).
  - Locally on the DashBoard computer, where they can also be accessed through the Presets panel (set Presets option to Local).

**Note:**

To access the VISCA Gateway feature for a Sony BRC camera, you must purchase a license for the Sony BRC Camera Control feature. Please contact Ross Technical Support for assistance.

**BUGS ADDRESSED**

- You cannot use both the VDCP task server port and HTTP trigger server port at the same time for GPI triggers. (Navigate to Component Editor > Remote Task Triggering)
- The Color Chooser transparency slider does not show transparency.
- Issues with Proxy Server for Carbonite.
- Long OGP JSON messages block communications.
WHAT'S NEW

- **LDAP CONFIGURATION**
  Removed the character limit on LDAP configuration fields to support larger queries.

- **WIZARD FEATURE**
  You can create wizards that contain a title, a page navigation pane, and a progress bar. The wizard allows you to automate complex tasks and break them into a series of steps that walk users through the process from start to finish. You can see an example wizard below:

You can choose which features you would like to be visible, and how many pages appear in the wizard. Feature options include the tabs, progress bar, and dialog width and height. The wizard is now available in the PanelBuilder **Edit Mode** toolbar.
If you would like to modify the basic wizard, you can customize it using the script functions defined below. Each function is optional, so if you do not define a function, the wizard simply uses the default wizard settings for that function call. This allows a developer to override only a small portion of the wizard's operation, or to control as many aspects of the wizard's operation as needed. You can see a basic example below:

```html
<wizard dialog="false" height="465" left="104" name="My Wizard" style="bdr:shadow;" tabsvisible="true" top="122" width="694">
  <config help="" helptitle="" key="w.model" message="">var model = {

getPageTitle: function(page) {
  return "SCRIPTABLE PAGE: " + (page + 1);
},

getMessage: function(page) {
  return "My message for page " + page;
},

getHelp: function(page) {
  return "My help for page " + page;
}

};

model</config>
<abs id="my-page1" name="Page One"/>
<abs id="my-page2" name="Page Two"/>
<abs id="my-page3" name="Page Three"/>
<abs id="my-page4" name="Page Four"/>
</wizard>
```
HELP CONTROL

You can create a Help Control popup to display a custom title and help message using the Help tag, as shown in the example below.

The Help Control pop-up is now available in Panelbuilder's Edit Mode menu.

To create a help pop up, use the Help button to create a basic canvas container, and in the Tag Attributes you can set the width, height, title and message. Messages can be plain text or html with many common html tags supported including hyperlinks. An OGLML example is shown below:

```html
<help height="40" html="true" left="53" name="?" popupheight="200" popupwidth="500" style="bg#ff0000;" title="Example Help" top="315" width="40"><![CDATA[
<html>
<left><b><u>Html formated Heading</u></b><br><font color=#ffffdd>Take me home</font><br><a href="https://www.rossvideo.com/">Ross Video</a><br>
The latest software release for Carbonite Black Solo unlocks a powerful USB Media Player functionality and is available to customers at no additional cost. This new media player provides the functionality of a single-channel clip player, for playout of compressed MPEG-4 AVC media directly from a connected USB-media drive. There is no other production switcher in the world with this level of built-in media playback.

</html>]]></help>
```
• **ULTRITOUCH DELETE FEATURE**
  Ultritouch now provides a **Delete** feature that allows you to delete folders and CustomPanels from the Ultritouch User Interface. You can delete folders or CustomPanels from the Ultritouch device in DashBoard, or from the Ultritouch device interface. In DashBoard open the Ultritouch device, and navigate to **Manage CustomPanels**. Then select the folder or file you would like to delete, and click **Remove**, as shown below.

![Ultritouch Delete Feature](image)

You can also delete CustomPanels in Ultritouch from the device interface using the same method, as shown below.

![Delete CustomPanel](image)

• **BORDER LAYOUT CONTAINER**
  You can use the border layout tool to create an area on a CustomPanel that you can anchor components to and later resize to maintain your intended layout. You can use a border layout to anchor components against any of the four borders of the container and in the center and set which of these areas will maintain their proportions when resized. It is useful for adding menus along the border edge of a CustomPanel, or to group components within a CustomPanel and later resize the components easily.

To add a border layout, in the PanelBuilder Edit Mode toolbar navigate to **Grids, Tables > Border Layout**. Once you've drawn the border layout area on the canvas and set a growth quadrant (the only component that will expand when resized), you can add up to five components to the border layout. The components that are not part of the growth quadrant
will maintain their height or width when resized.

Here's an example of a border layout with the growth quadrant set to the central content:

```
<abs contexttype="opengear" gridsize="20" id="_top" style="">
  <borderlayout height="460" left="20" top="40" width="780">
    <label anchor="north" height="56" name="Top Content" style="txt-align:center;bg#8C43AC;size:Big;font:bold;" width="182"/>
    <label anchor="east" height="370" name="Right Content" style="txt-align:center;bg#E67E22;size:Big;font:bold;" width="150"/>
    <label anchor="south" height="100" name="Bottom Content" style="txt-align:center;bg#287EB8;size:Big;font:bold;" width="467"/>
    <label anchor="west" height="338" name="Left Content" style="txt-align:center;bg#BF3A2B;size:Big;font:bold;" width="150"/>
    <label anchor="center" height="127" name="Center Content" style="txt-align:center;bg#27AE5F;font:bold;size:Big;" width="152"/>
  </borderlayout>
</abs>
```

OTHER ENHANCEMENTS
- The option to set the visibility of components in the UI is now available for all component tags. The **Visible** checkbox, as shown below, is found by double-clicking a CustomPanel component in **Edit Component > Position/Stretch Attributes** tab.

![Visible Checkbox](image)

- Visual Logic blocks now available for new Carbonite RossTalk Commands.
- The exit tag, `<exit/>`, now allows you to open a new tab when closing the current tab.
- Drawers now have improved attribute functionality, which includes the following fields: name, ID, width, height.
- Global labels with a *.lbl extension can now be loaded using File > Open.
- Additional connection options were added to Ultritouch for IPS types, such as NK-NET, and RCP.

### BUGS ADDRESSED

- Ultrix sometimes disconnects and return with “Max connections exceeded” message.
- Ultrix reloads information in DashBoard too frequently in certain network environments.
- When a drawer is set to Enabled, it doesn't hide or show the Drawer tab.
- DashBoard may run out of memory when loading very large firmware files.
- Issues with platform upgrades in Ultritouch.
- Unable to use multiple OGP devices on same IP with DashBoard Command Line Interface.
- The File Browser does not point to the real location when the browser file is clicked.
- Dragging params from Carbonite to the CustomPanel breaks VL API blocks.
- The exit tag's Exit Type Window opens more than one exit box.
- DashBoard cannot send firmware to NK products.
- For the XPression Plugin, you cannot see the Pattern Generator in DashBoard unless DashBoard is local to XPression.
- For the XPression Plugin, adding a device in config makes the XP widget not show the take items for all the XP devices.
KNOWN ISSUES

NOTICE FOR CUSTOMERS USING ROSS VIDEO SERVERS

- If you are currently operating a DashBoard CustomPanel that includes active video panes that are supplied by a Tria, Kiva, or Mira branded Video Server product:
  - DashBoard 9.5 and later has a known issue that disables active video panes when running directly on the Tria, Kiva, or Mira hardware.
  - **Workaround**: DashBoard 9.4.1 does not have this issue and should be used when rendering active video panes in DashBoard CustomPanels, when DashBoard is running on Tria, Kiva, or Mira hardware.

We're working to update Tria, Kiva, and Mira to stay current with DashBoard releases.

ROLE-BASED ACCESS CONTROL (RBAC)

- **FOR ULTRITOUCH** — When you assign a role permission for an Ultritouch device, currently the device permissions (to read, write or upgrade) may not perform as expected due to differences with the Ultritouch Management panel. It is recommended that you use both read and write access per-missions to perform administrative actions on the Ultritouch Management panel.

- **RPM SERVER CERTIFICATES USING HTTPS** — If you are using an RPM Server that is secured with HTTP Secure, future DashBoard upgrades will require manually adding the RPM Server certificate to DashBoard after the installation process is complete. The upgrade procedure can be found in the DashBoard Role-Based Access Control Guide (85100DR-09A-xxx).

- If a role has any permissions for a card in an openGear frame, that role will also allow users assigned to that role to access any panels that use that card, or any cards in that frame, as a data source. (DBE-835)

NETWORK DEVICE INTERFACE (NDI)

- Limitations for NDI® 5 - DashBoard 9.4 and later support NDI® 5, but not all video codecs are supported for NDI®|HX:
  - Windows version does not support the HEVC codec
  - Linux version does not support the HEVC and H264 codec

AURA THEME

- Due to issues with SVG images, it is currently recommended that you avoid using SVG images within tables, trees, and combo boxes.

- If you are using the Spinner (Hex) widget in DashBoard 9.0+ with a Mac client, you may encounter issues with the text not displaying fully.
ROSSTALK EX

- If you use a panel that uses RossTalkEx to send commands to an XPression, and then try to access that XPression's Sequencer View panel, it will fail to load the sequence items. If you open the Sequencer View panel first, and then use your panel you will not encounter any issues.

PAINT CONTROL FOR SONY ENG/BOX CAMERAS

- Upgrading to a new version of DashBoard causes SmartShell to lose connectivity to Sony CNA-1 cameras via the DashBoard proxy server. To re-establish connectivity, open the DashBoard Proxy Server page, make note of the order of the cameras, Unshare all cameras, then Share each camera again in the same order that they were originally shared by right-clicking on each camera in the DashBoard tree and clicking **Share Device**. (CI-190)

PTZ CAMERA CONTROL

- The VISCA gateway for PTZ Cameras provides only a limited implementation of the VISCA protocol and does not include support for most status inquiries including the current value of pan, tilt, zoom and focus axes. Due to this limitation, focus control does not work from Carbonite (when configured to connect to a Sony device) or Acuity switchers when connecting to a PTZ Camera through the DashBoard VISCA gateway. Auto focus is unaffected by this issue and can be set from Carbonite or Acuity. For Carbonite, the recommended workaround is to use the “pivotcam” device configuration when connecting to the DashBoard VISCA gateway. For Acuity, focus must be controlled directly from DashBoard. Other VISCA controllers may encounter similar problems when connecting to the VISCA gateway. The recommended approach is to use a velocity-based control wherever possible (CI-307, CI-189)

- The full range of iris values is not available when controlling iris from Carbonite and Acuity when connecting to a Sony BRC camera through the DashBoard VISCA gateway. This does not affect the range of iris values when the camera is in automatic exposure mode. Workaround is to control iris directly from the DashBoard UI. (CI-188)

- When connecting to a Sony BRC-X1000 camera from DashBoard and switching from manual exposure to auto exposure with no change in exposure settings (iris, shutter, gain) there is a small but noticeable change in light levels in the video SDI output. This appears to be caused by the camera itself. (CI-169).

- Shutting down DashBoard and then immediately restarting it may occasionally result in failure to connect to any PTZ Cameras in the DashBoard tree. If this happens, the recommended resolution is to stop and restart DashBoard, ensuring that it has completely shut down before restarting it. Connectivity problems can also occur if two applications on a workstation are both attempting to connect to VISCA cameras using UDP connections. This could be another instance of DashBoard running the DashBoard PTZ Camera control or a Ross Sony camera custom control panel, or another non-Ross application that also connects to VISCA cameras. To resolve such connectivity problems, shut down all applications.
connecting to the VISCA cameras and then restart a single instance of DashBoard to connect to all your cameras. Note that it is not possible to run the DashBoard PTZ Camera control alongside a Ross Sony camera custom control panel even if they are hosted on the same instance of DashBoard and connecting to different cameras. (CI-238)

- It is not possible to set the UDP Direct Control Address when configuring the Furio gateway for a PTZ Camera Controller in DashBoard when running on a Linux operating system. If you wish to use the Furio gateway functionality of the PTZ Camera plugin, use of Windows or Mac is required. (CI-739)

**SYSTEM CONFIGURATION**

- When installing your DashBoard client, if you experience communication issues and are running anti-virus software, consult your I.T. department.

**JAVA FX SELECTION ISSUE**

- Selecting JavaFX as the browser implementation in DashBoard preferences or directly in the <browser/> tag returns the incorrect browser type on Windows and MacOS. Use of this option should be avoided in DashBoard 9.7.0. (DASH-4639)
GETTING HELP

- Help documentation is available directly in DashBoard, and can be found by navigating to the to menu, under Help > Help Contents. You can also download the guides in PDF format from the DashBoard product page on the Ross Video website under Downloads.

- Our 24-hour hotline service provides access to technical expertise around the clock. After-sales service and technical support is provided directly by Ross Video personnel.

- During business hours (Eastern Standard Time), technical support personnel are available by telephone.

- After hours and on weekends, emergency technical support is available. A telephone-answering device will provide the names and phone numbers of technical support and field service personnel who are on call. These people are available to react to any problem and to do whatever is necessary to ensure customer satisfaction. For serious issue which need urgent attention and tracking, please ensure you are given a ticket number and refer to this in future communications.
  
  - Technical Support: (+1) 613-652-4886
  - After Hours Emergency: (+1) 613-349-0006