

Acuity™ 15.0a

Welcome to the Acuity™ Release Notes. Please read this document to find important information on areas of Acuity™ that may not be covered in the user documentation.



Important: If you are upgrading from v5.0, or earlier, please contact Ross Video Technical support for upgrade instructions.

Note: GV Grass Valley® editor protocols are not supported when the switcher is operating in a UHDTV1 video format at this time.

v15.0a (December 2025)

What's New

- Added support for the TouchDrive Control Panels.
- ACT-4410—Enhanced Custom Control copy/move workflow, including source tracking, full-bank copy/move, and support for copying or moving ranges of customs.
- ACT-4321—Added the ability for Custom Controls to remove items from the Media-Store cache, matching existing UI functionality.

Bugs Addressed

- ACT-3122—Fixed errors when inserting a Custom Control into another CC during recording, preventing corruption and unintended dual-bank recordings.
- ACT-3759—Corrected AMP clip list loading with Tria servers where only partial clip lists appeared after refresh.
- ACT-3776—Added AUX buses as valid XPT sources for RossTalk commands.
- ACT-4146—Satellite panels now appear correctly on the Software Status webpage.
- ACT-4290—Resolved inability for a satellite panel to control video server devices when both main and satellite attempted communication.
- ACT-4325—Fixed Roll Clip enable/disable toggle in VTR/VDCP source configuration.
- ACT-4360—Corrected Panasonic PTZ drift by ensuring pan/tilt stop commands are issued properly.
- ACT-4386—Corrected the percentage indicator when loading animations to ME MediaStore.
- ACT-4387—Fixed inability to insert before or modify the first event of the first Custom Control.
- ACT-4391—Prevented crashes when adding mismatched “End If” statements to Custom Controls.
- ACT-4392—Resolved Panasonic camera control failures when too many cameras were connected.
- ACT-4395—Enabled assigning CC banks to keyer rows on Acuity panels.
- ACT-4413—Aux backsplash now receives proper ME re-entry glow indications.
- ACT-4421—Satellite panels can now control individual PBUS devices rather than only the “ALL” group.
- ACT-4426—Fixed rare cases of frame-to-panel messages being dropped or corrupted under heavy threading.
- ACT-4448—Corrected issue where personality menu changes were not saved unless the menu was exited before storing.
- ACT-4178—MV Media-Store sources now appear correctly in Initialize Panel Bus Map.
- ACT-4455—Corrected MV Media-Store mapping on TD-Classic so enabled MV stores display and behave correctly.
- ACT-4472—Fixed red text display for UHD resolutions in the Media Store Browser.
- ACT-4477—Removed unused RoboCam configuration from the Acuity frame.

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- ACT-4523 — Fixed missing or corrupted panel communications after a four-finger reset.
- Added support for ARP (Acuity Rack Panel) on native hardware.

v9.2p (2024-05-21)

What's New

- Allow the user to re-enter up to 4 aux buses. (ACT-3542)
- Added a warning when performing an ME Cut on the B-side and split ME is not active. (ACT-3432)

Bugs Addressed

- ACT-3301 — Corrected an issue with custom control logic when using IF, ELSE and ENDIF.
- ACT-3522 — The GPI feature on the remote aux panels would trigger the wrong input.
- ACT-3527 — Occasionally, the panel would reset itself.
- ACT-3529 — The panel would freeze when editing large custom controls.
- ACT-3538 — The timecode saved in EDL lists was always 00:00:00.
- ACT-3530 — System could freeze if an error was detected while retrieving a custom control from disk.
- ACT-3162 — Occasionally, while recording or editing a custom control in offline mode the panel would disconnect from the frame.
- ACT-3588 — OverDrive could not perform an ME Cut on the B-side.
- ACT-3594 — If Contribution Serial Tally was configured on the frame's Periph 4 port, upon a disk recall, the connection was changed from TCP to UDP.
- ACT-3748 — When editing a custom control logic using an IF statement, still stores cannot be selected.
- ACT-3557 — Could not PLAY a specific channel on the Enco audio server.
- ACT-3757 — Effects dissolve would not always work from OverDrive.
- ACT-1367 — When performing a snapshot recall on a Lawo audio mixer, the sources in the aux buses were not displayed correctly.
- ACT-3844 — Occasionally, OverDrive would not connect to Acuity.
- ACT-3759 — When using AMP to control a video server, if the clip was ejected, the old clip name continued to be displayed.
- ACT-3911 — Reduced log messages regarding auxbus \geq MAX_AUX_BUS.
- ACT-4027 — The panel would become unresponsive if a second webpage was used to display the virtual 2RU aux bus backsplash panel.

v9.2o (2023-09-22)

What's New

- Added compare XPT/On-Air/Active State to other XPT/On-Air/Active States to custom control logic. (ACT-3391)
- Allowed control of Utility Bus 1 and Utility Bus 2 via OverDrive. (ACT-3273)

Bugs Addressed

- ACT-3310 — Cannot cue clip any longer than 15 characters via RossTalk.
- ACT-3327 — Could not control more than seven Ross Video RCPs at a time.
- ACT-3065 — Corrected on-air indication of aux buses on the 2RU backsplash.

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- ACT-3095 — Improved logging of connections to external devices.

v9.2n (2023-06-19)

What's New

- No new features were added for this version of software.

Bugs Addressed

- ACT-3294 — Loading multiple 3D sequences on Acuity at the same time will drop them to 2D.

v9.2m (2023-06-08)

What's New

- Allow control of transition MEs A and B side independently in custom controls. (ACT-3135)
- Added a “burst” mode to TSL UMD output. (ACT number not available)

Bugs Addressed

- An auto transition in a custom control could not be modified. (ACT-3237)
- When a memory was recalled via a custom control, the panel would display an incorrect memory number. (ACT-3236)
- Reduce amount of system logging. (ACT-3240)

v9.2l (2023-05-17)

What's New

- No new features were added for this version of software.

Bugs Addressed

- For video server, in remote control playlist mode, clips in the list above 1044 would not be cued. (ACT-3172)

v9.2k (2023-05-16)

What's New

- Add extra option to turn on or off remote joystick control of Furio robotic cameras. (ACT-3038)
- Added XPression Datalinq support. (ACT-2662)

Bugs Addressed

- Remaining timecode for clips cued on an Omneon video server was displayed incorrectly. (ACT-3068)
- The source of fly keys would get set to black if there were more than four keys with a video server source (Acuity remote controlled) were cued at the same time. (ACT-3067)
- The panel would reset if the user attempted to connect to a Furio robotic camera with more than 512 shots. (ACT-2138)



- Media store audio was not available on an ME background bus. (ACT-3173)
- Could not recall Furio robotic camera shots above 32767. (ACT-3103)

v9.2j (2023-02-02)

What's New

- Added Server Many when configuring a RossTalk device as a network server. (ACT-2921)
- Added the screen parameter to the TSL UMD input. (ACT-2923)
- Added RossTalk VTR commands; ACTIVEID, CUECLIP, PLAY, PAUSE and EJECT. (ACT-2296)

Bugs Addressed

- Reduce amount of system logging. (ACT number not available)
- Improvement to Furio robotic remote joystick control. (ACT-2927)
- Correction to pause and hold identifiers in custom control visualization. (ACT-2866)
- MECUTs and MEAUTOs in custom controls were performing the cuts and auto transitions on PGMB only. (ACT-2941)
- When adjusting the border size for a wipe, the size would suddenly jump from 0 to the maximum. (ACT-2280)

v9.2i (2023-01-03)

What's New

- Allow multiple connections for TSL when configured as network servers. (ACT-2867)
- Addition of RossTalk switcher events media store CAPTURE, KEYCUT and KEYAUTO. (ACT-2822 and ACT-2854)

Bugs Addressed

- Enable the remote joystick control of the Furio camera from Acuity only when the joystick is touched while the Furio remote control is active on the menu. After 5 seconds, the remote joystick control is relinquished. (ACT-2792)
- Improvements to remote control device connections. (ACT number not available)
- The panel would reset if the user attempted to visualize custom controls with more than 100 events. (ACT-2859)
- ME Cut commands in custom controls created pre-9.2 would not execute. (ACT-2861)
- Occasionally, the knob expansion list feature would not work. (ACT-2858)
- Correction to some terminology in custom control logic. (ACT-2878)
- Corrected an issue with blank events for RossTalk switcher events in custom controls. (ACT-2860)
- Default Ethernet connected devices to TCP instead of UDP. (ACT number not available)

v9.2h (2022-09-21)

What's New

- Split self-keys now maintain the alpha when a new video source is selected. (ACT-2018)
- The Lawo UHD Core audio mixer has been added to the list of supported devices. (ACT-2645)



Bugs Addressed

- Improvements to the Furio robotic driver to support Cambot robotics. (ACT-2422, ACT-2792)
- Failover OverDrive connections were not accepted. (ACT-2604)
- Split auto-select keys were not working. (ACT-2611)
- Occasionally, the message “You can only use two HD UltraChromes” would be displayed when attempting to activate the second HD UltraChrome. (ACT-2680)

v9.2g (2022-06-13)

What's New

- Added visualization to CC blocks. (ACT-2640)

Bugs Addressed

- Upgrading from v9.1 to v9.2 would default RossTalk ports to use HTTP POST. (ACT-2014)

v9.2f (2022-06-07)

What's New

- No new features were added for this version of software.

Bugs Addressed

- Using OverDrive, the switcher may reprepare a Furio shot. (ACT-2422)
- The router crosspoint option “show mnemonic” did not work. (ACT-2532)
- Logging out from the virtual web panel did not work. (ACT-2576)
- Using the “type in” command for VTR clip names and IDs could corrupt the VTR CLIPS file. (ACT-2606)
- Switcher source names were not being passed to the UltraTouch panel. (ACT-2612)
- Moving an audio mixer fader would not save the new value as the default. (ACT-2622)

v9.2e (2022-02-18)

What's New

- No new features were added for this version of software.

Bugs Addressed

- Memory module does not follow the media store state correctly. (ACT-2144)
- Security fix for CVE-2021-4034. (ACT-2229)
- Timesense from the GVG K2 video server was not being reported correctly. (ACT-2338)



v9.2d (2022-02-01)

What's New

- A new personality option “Old DVE Color” was added to allow compensation for a color variation between DVE border color and background color. (ACT-1986)
- Users can now create or edit custom controls offline. (ACT-2099)

Bugs Addressed

- GPI Outputs menu would label GPIs as inputs after assigning them as outputs. (ACT-403)
- MultiViewer Layout 1 was not being correctly defaulted. (ACT-406)
- VTR clips inpoints and outpoints were not being reset when a new video server clip was assigned. (ACT-716)
- Occasionally, on power-up, an Acuity 8RU frame would assign ME and I/O boards as if it was a 4RU frame. (ACT-1003)
- Improvements to Panasonic robotic control. (ACT-1343, ACT-1366, ACT-2125, ACT-2184)
- Occasionally a key crosspoint bus would lock after the chroma key color pick menu was used. (ACT-2107)
- The virtual panel personality option would be disabled upon start up. (ACT-2167)
- Key Mem values were not being stored for Auto Select keys. (ACT-2195)
- Ross Video Furio robotic cameras were controllable even if they were set to disabled via OverDrive. (ACT-2199)
- Pressing Store Recall for ME1 in Global Memory Pad would change the bottom row to ME1. (ACT-2203)
- OverDrive could fail to get clip lists from AMP controlled video servers. (ACT-2237)

v9.2c (2022-10-22)

What's New

- Global stores have been added to the list of sources for the TSL tally protocol. (71048)
- RossTalk custom controls now support the Ross Video Tria video server. (71568)
- 480i is now upconverted to 720p when using a 720p reference. (71697)
- In the ME/Aux Tally menu, the user can now select “Never”. (71960)
- Split self-keys now maintain the alpha when changing the video source. (72923)
- Support added for Technopoint TuningS robotic camera control. (ACT-2006)

Bugs Addressed

- On systems using a P1022 CPU frame card, the centre crosshairs on the preview overlay were not centred. (72155)
- Improvements to Vinten robotic camera control. (72234)
- Added an Eject button to the remote control UI for AMP controlled video servers. (72326)
- Improvements to the Alternate Device menu. (72378)
- UltriTouch improvements for aux bus support. (72405, 72408)
- Improvements to Ross Video Furio robotic camera control. (72635)
- Improvements to Panasonic robotic camera control. (73043)
- Users were unable to set Program C colour gamut or dynamic range. (72512)
- “Run From Here” did not work while editing Custom Controls. (ACT-192)



- Custom devices have been removed from the communication setup menu. (ACT-202)
- When entering a RossTalkXPN type in command, the message “command cannot be empty would always be displayed. (ACT-1369)
- Improvements were made for looping video when controlling an EVS MaxS. (ACT-1897)
- Occasionally, software options would be deleted. (ACT-1991)
- The minimum panel OS required has been increased to OS49. (ACT-1945)
- When used with OverDrive, video clips from an AMP controlled video server where being falsely marked as not being UTF-8 compliant. (ACT-2008)

v9.2b (2021-02-24)

What's New

- Custom controls now support the logic functions IF, THEN, ELSE. (Enhancement 66854)
- Added a new extra option to the TSL UMD device to remove non-printable characters. (Enhancement 69752).
- Wipe pattern settings are now recorded in custom control macros. (Enhancement 70986).

Bugs Addressed

- Occasionally, the panel would not communicate with external devices. (Bug 53579, 68469, 68896, 69255, 69291, 69516).
- Orad character generator control issues have been corrected. (Bug 65565).
- Time code for the Nexio AMP was not being displayed. (Bug 67282).
- Improvements to VISCA robotic camera control. (Bug 67466, 70510).
- With two channels of DVE assigned to a key, pressing the key select button would not auto follow the correct menus. (Bug 67493).
- Changing banks while recording CC's no longer stops the recording. (Bug 67848).
- Incorrect IP addresses in the communication menu were being displayed. (Bug 68037).
- The communication menu would not accept numerical entries. (Bug 68156).
- Occasionally, a bus would remain in the shift lock state after being disabled. (Bug 68157).
- TSL serial tally data was not being sent immediately upon bus changes. (Bug 68509, 68510).
- Occasionally, the knob list auto expansion pop-up window would not close. (Bug 68547).
- The switcher could not retrieve the clip list from an Evertz Dreamcatcher. (Bug 68576).
- Shotoku recall shots could fail. (Bug 68642).
- VTR Timeout was not being displayed for AMP devices. (Bug 68757).
- Ross Furio moves could fail. (Bug 68958).
- Termite device drivers were not properly converted to embedded device drivers. (Bug 68973).
- Looping for Avid Airspeeds would randomly stop. (Bug 69038).
- Crosspoint bus map 16 was not being sent to OverDrive. (Bug 69122).
- Panasonic robotic camera control issues have been corrected. (Bug 69135, 70863).
- Occasionally, touch screen buttons would display at twice or three times the normal height. (Bug 69205).
- Values typed into knob pop-up entry windows was not being saved. (Bug 69484).
- Corrected issues with source naming scroll list. (Bug 69579, 69814).
- OverDrive could not be assigned to a frame network port. (Bug 69828).



- Occasionally, the module assignments would be incorrect on a virtual panel via a web browser to the real panel. (Bug 69884).
- The Acuity Rack Panel will now default to a static IP. (Bug 70184).
- A latency on updating multiviewer UMD information when ME auto follow is activated has been reduced. (Bug 70465).
- OverDrive did not have access to PGM C, D, E and F. (Bug 70696).
- Custom control macros would show as missing in OverDrive after a set recall on Acuity. (Bug 71013).
- Incoming TSL UMD labels were not being displayed on satellite panels. (Bug 71173).
- Occasionally, when controlling a Lawo audio mixer, a fader would “bounce” back to a non-zero value after being set to zero. (Bug 71321, 71322).
- When controlling a Lawo audio mixer, accessing a stereo pair would cause timeouts. (Bug 71338).
- Switching multiple destinations on a router using the Probel could take minutes. (Bug 71363).
- Ensure proper rolling of video servers for PGM B, C, D, E and F. (Bug 71480).
- TSL UMD output bus messages were incorrect. (Bug 71535).
- Custom control macro insert robotic camera shot names were incorrect. (Bug 71553).
- Occasionally, looping video on the EVS MaxS did not work correctly. (Commit 43356).

v9.2a (2020-03-20)

What's New

- All Flex drivers have been replaced with embedded drivers. Current AMP and Furio drivers will automatically use the embedded drivers upon upgrade. (Enhancement 62235)
- Added UNCUE command to XPression RossTalk. (Enhancement 66705)
- Added KEYCUTON, KEYCUTOFF, KEYAUTOON and KEYAUTOOFF commands to RossTalk. (Enhancement 66876)
- Added Keys Include custom control command. (Enhancement 66906)
- Added Trans Select custom control command. (Enhancement 66906)
- The number of CCs that can be executing at the same time was increased from 28 to 96. (Enhancement 67452)
- Panel glow for the B-side of a split ME now supports multiple colors. (Enhancement 68146)

Bugs Addressed

- Custom control macros for Evertz routers were not working correctly. (Bug 66728).
- Preview B now follows U1/U2 when in split mode. (Bug 66636)
- Occasionally, when taking a still store image to air, an audio mixer channel fader was raised. (Bug 66747)
- Performing a key trans CC, only one key at a time would transition. (Bug 66661)
- When typing in RossTalk commands in hex mode, trailing spaces were being removed. (Bug 66678)
- While in Dust mode, it was possible to make crosspoint changes. (Bug 65441)
- When capturing a partial screen still, the top two lines were not being saved. (Bug 66900)
- GPI diagnostics does not work if only on top menu. (Bug 66930)
- VTRs and video server clip players could not be controlled if assigned to an input above 240. (Bug 66819)
- Cameras recall commands in a CC would not execute if the camera was assigned to an input above 127. (Bug 67631)
- When shutting down the system, all network connections are closed. (Bug 67467)



- Occasionally, an 8 RU Acuity would default its configuration to a 4 RU causing a shift in input and output assignments. (Bug 67410)

v9.1d (2020-01-13)

What's New

- No new features were added for this version of software.

Bugs Addressed

- Performing a key transition via in custom control (using the Key Trans CC) would only transition one key (Bug 66661).
- If a SideBoxNet module is configured on an Acuity Rack Panel (ARP) and the connection is dropped, upon reconnection the Aux panel crosspoints would become corrupted (Bug 67028).

v9.1c (2019-12-10)

What's New

- No new features were added for this version of software.

Bugs Addressed

- The manuals' table of contents were not being properly displayed.

v9.1b (2019-11-29)

What's New

- New Furio Camera control Driver (Enhancement 62235).
- Search function for Clips in the CC Insert Event Clip Menu has been added (Enhancement 63402).
- Non-zero starting timecodes are now supported when using VDCP looping (Enhancement 65041).
- PGM B can now be excluded in TSL data. (Enhancement 66028).
- Sources on aux buses will fire on-air CCs if the aux bus is configured as on air. (Enhancement 66562).

Bugs Addressed

- Audio Level Include OFF will no longer set faders in Direct Control to 0 (Bug 65038).
- Lawo Gain Custom Control works with numerics rather than percentages (Bug 65617).
- Ultritouch now supports locked Aux Buses (Bug 65970).
- A camera disabled via OverDrive could not be enabled. (Bug 66425).
- The Pivotcam robotic camera would occasionally lose connectivity. (Bug 66546).
- Scrolling through the VTR clip list could cause the panel to become unresponsive. (Bug 66741).

v9.1a (2019-09-23)

What's New

- Ultritouch is now supported as an RCP device on Acuity (Enhancement 65606).
- An extra option has been added to automation “LoadStillType” with two options: “All MEs” – load a still on all MEs and “Single ME” – load still to the ME store the xpt is set to (Enhancement 64650).
- Sony BRC-1000 and JVC cameras have been added to the Visca cameras supported (Enhancement 65147, 65404).
- Panasonic AW-RP120, AW-RP150 camera controllers and Panasonic AW-UE150 camera are supported (Enhancement 65341). Setting the target to “none” will allow access to more than 5 cameras based on what the controller is controlling (Enhancement 66149).
- An extra option has been added to the AMP protocol to not send a loop off command when playing a clip (Enhancement 65298).
- Lawo Audio mixer support has been enhanced with “Lawo Mapping” in Source Configuration. Channels can be selected to control VCAs, Inputs, Groups, Auxes and Surround. Gain for Inputs and VCAs is also now supported with a “Audio Gain” Custom Control (Enhancements 65616, 65617).
- A RossTalk command to turn GPIs on and off has been added (Enhancement 64994).
- RossTalk devices have a new extra option “Ping”, if set to “On” a ping message will be sent every 10 minutes from last activity (Enhancement 65492).
- Double click option has been added for PST Custom Controls (Enhancement 65301).
- On / Off Air and On PST Custom Controls may now use Internal Sources (Enhancement 65330).
- “Knob List Expansion” is a new Personality Option that will permit the expansion of lists when the related knob is scrolled (Enhancement 65507).
- A Personality Option has been added to return the Positioner to center after a second of not being used (Enhancement 65502).

Bugs Addressed

- OverDrive now displays the correct durations for Nexo Servers (Bug 65027).
- The Custom Control “Recall Audio Memory” by name now works with the Ember+ protocol (Bug 64697).
- Looping with Avid Airspeed servers has been made more robust (Bug 65041).
- The number of faders is now displayed for Wheatstone Audio mixers (Bug 65574).
- CB1 and CB2 panels now display their IP addresses on the Network Setup page of the Acuity (Bug 64766).
- Accessing unlicensed keys will no longer display black, the key will be ignored (Bug 65044).
- Trailing events are no longer recoded when editing a Custom Control (Bug 65318).
- Fader arm support for attached On / Off Air Custom Controls has been added (Bug 65319).
- Custom Control executing an Auto Key Transition will now roll cameras or video servers (bug 65673).
- Split Keys not on air will no longer run Custom Controls or roll cameras or video servers (bug 65452).
- Empty Custom Controls no longer cause all running Custom Controls to stop (Bug 65571).
- “None” would occasionally appear when selecting GPI Input Assignment for Custom Controls (Bug 65678).
- GPIs attached to Aux Bus 7:1 or greater were not upgrading properly, this has been fixed when upgrading from Acuity 7.1 or earlier (Bug 65647).
- The scroll bar in lists now follows the Up / Down buttons (Bug 65840).
- ME / Aux row selection is now editable in the ME / Aux row selection menu (Bug 65526).



- Red on-air tally will disappear from a xpt button when pressing shift and selecting the associated shifted xpt (Bug 65917).
- Loading a still will no longer affect keyers with other stills on the same channel of a different ME (Bug 65947).
- “Show Attached Macros” Personality item now saves the setting it was set to when saved to disk and will recall that setting correctly (Bug 65353).
- Color Settings – “Selected XPTs” is now supported with “Show Attached Macros” when enabled (Bug 66136).

v9.0c (2019-06-21)

What's New

- Ember+ protocol control has been expanded to include control of VCAs and Recall Memory by Name now permits all available snapshots to a maximum of 200 (Enhancements 65040, 65035, Bug 64697).
- Off Air Custom Controls now have a roll clip option (Enhancement 64975).

Bugs Addressed

- OverDrive now displays durations for Nexo Video Servers (Bug 65027).
- Connectivity to PIVOTCam and SONY IP cameras has been made more robust (Bug 65339, 65351, 65305, 65296).
- Capturing thumbnails in Acuity through the Robotics server was occasionally not working (Bug 65087).
- The buttons on the Preview Module have had their brightness corrected (Bug 65028).
- Frame syncs were occasionally not working correctly in SD (Bug 65003).
- Global-Store Audio Icons were not correct in some cases (Bug 64905, 64906).
- Custom Controls attached to PST may select up to Custom 48:48 (Bug 64949).
- MediaStore events in Custom Controls are now modifiable (Bug 64806).
- Insert Event/Special has been changed from “Stop Other CC” to “Stop All Other CCs” (Bug 65285).
- Aux names changed via the Acuity Virtual Panel are now reflected in the Disk Set and the MultiViewer (Bugs 64910, 64867, 64909).

v9.0b (2019-05-20)

What's New

- The LAWO mc²56 MKIII Audio mixer can now be controlled by the switcher using the Ember+ protocol (Enhancement 63353).
- Acuity can now manage 30,000 clips from a video server (Enhancement 51238).
- Custom Controls can be attached to Inputs when sources are brought on/off air or selected on the preset bus (Enhancement 62155).
- Acuity Panel can now be run in an appropriate VMWare container (Enhancement 62774, 64632).
- Disable Camera has been added as a Custom Control (Enhancement 60861).
- XPTs with Attached Macros can be configured to be lit via a new Personality Option “Show Attached Macros” (Enhancement 64341).
- “Split ME Colors” has been added to the Keyer Color option PGM A and PGM B assigned keyers are PGM A's colour
 - PGM A assigned keyers match PGM A's colour



- o PGM B assigned keyers match PGM B's colour
- o Unassigned keyers are off (Enhancement 64349).
- A new Personality Option "Aux Bus Names" has been added.
 - o Aux N:M: The default names for the aux buses (e.g. Aux 4:6).
 - o Names: The names that the aux buses were given (Enhancement 64610).
- Turning Remote Control Off in OverDrive now prevents Custom Controls from controlling Flex cameras (Bug 60861).
- OverDrive can now sync the status of Custom Controls (Enhancement 60910).
- OverDrive can now play audio from the Media Store (Enhancement 61364).
- OverDrive Custom Control "TAKE" added to the Insert Special menu (Enhancement 62979).
- Memories can now be Copied, Moved and Swapped (Enhancement 62995).

Bugs Addressed

- Color Schemes created in previous versions now persist after an upgrade (Bug 63263, 64438).
- Scrolling counterclockwise when selecting the number of frames to capture could behave erratically when scrolling back and beyond one. This has been corrected (Bug 64257).
- Launching a Custom Control is now logged (Bug 64280).
- Panel ExtLnk ports get reset on a configuration change (Bug 64700).
- Cut ME is now a Custom Control (Bug 64805).
- Recalling a Character Generator Set folder via a Custom Control now has the correct description for the Load to PGM and the Load to PV functions (Bug 64851).

v9.0a (2019-04-04)

What's New

Carbonite Black Control Panels

Support has been added to allow the CB1 and CB2 control panels to connect to an Acuity Rack Panel (ARP) or connect to SoftPanel that is running in VirtualBox. Note that only an Acuity Rack Panel can operate as a replacement for a Primary Panel. SoftPanel may operate as a satellite panel only.

MV-Store

An MV-Store (MultiViewer Store) is the same as an ME-Store except it is available when the ME is configured as a MultiViewer. Both are accessed from the same menu and can load the same media files. The only difference is that ME permissions do not apply to the MV-Store.

Edit Custom Controls

You can now cut/copy, paste, move, and edit events in a custom control list. Select the event you want to edit and press Edit Event. The menu where the event was inserted is displayed, allowing you to change your selection.

New Custom Controls

A number of custom controls have been added to or expanded.

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Table 1: Custom Control

Command	Description
Play CC	Run a custom control from a custom control. Use the Bank and Button knobs to select the CC you want to play.

Table 2: Switcher Setup

Command	Description
Split ME	Select which side of the Split ME you want to select. Select the ME and use the ME PGM knob to select the Program A, Program B, or both.

Table 3: Transitions

Command	Description
Preset Bkgd	Select a Preset Background for the selected ME. Select the ME that you want to use a preset black transition for and use the Active knob to turn preset background on (Enable) or off (Disable).
Set PST Bkgd Xpt	Select the source used for the Preset Background transition. Use the XPT knob to select the source you want to use for the Preset Background transitions.
Trans Type	Set the transition type on the Next Transition area of the ME. Select the ME that you want to perform the transition on and use the Trans Type knob to select the type of transition.
Trans Limit	Turn on the transition limit for the selected ME. Select the ME that you want to activate the transition limit for and use the Active knob to turn transition limit on (Enable) or off (Disable).
Key Over	Select a Key Priority transition for the selected ME. Select the ME that you want to perform a key priority transition for and use the Active knob to turn key over on (Enable) or off (Disable).
Roll Clip	Turn on roll clip for the selected ME. Select the ME that you want to use roll clip on and use the Active knob to turn roll clip on (Enable) or off (Disable).

Attach CC to Preset

You can now attach a custom control to a source on the Preset Bus of the Program (on-air) ME.

On-Air CCs

On-Air CC execution can now be separated from Roll VTR.

Additional MultiViewer Heads

The Video Processor MultiViewer now has 4 MultiViewer heads (A, B, C, D). Each head has independent layouts and source assignments, but still shares the pool of 32 sources. The number of sources available has been increased with 20 assignable and an additional 12 fixed. The fixed inputs include the output of each MultiViewer head, the MV-Store channels, and the floating 3D DVE outputs.

Bus Copies with Alpha

The bus copies have been expanded to include the key alpha channels.

Relative Bus Copy

You can copy the contents of a video bus to another without specifying a particular bus as the source or destination. The source and destination are determined by the relative on-air or on-preset status of the ME. For example, if ME 1 is re-entered on the background bus of the program ME and ME 2 is re-entered on the preset bus of the program ME. A copy from On-Air to Preset will be from ME 1 to ME 2.



Mnemonic Colors Expanded

The colors that can be applied to the mnemonics on the control panel have been expanded.

- Standard — use the standard mnemonics color.
- Green — use a green color.
- Red — use a red color.
- Blue — use a blue color.
- Yellow — use a yellow color.
- Orange — use an orange color.
- Purple — use a purple color.
- ME X Glow — use ME Glow color X.
- Aux Glow — use the aux glow color.
- CC Glow — use the CC glow color.
- User Color X — use User Color X.
- None — don't use a color for the mnemonic.

Note: The Panel Mnemonic Bright/Contrast is now independent to each control panel.

Post DVE Mask

The mask for preset pattern keys has been moved downstream of the DVE key. This allows the mask to remain unaffected if the DVE key needs to be adjusted. The mask for flying chroma keys, self keys, and auto select keys remains the same.

Key Glow Colors

Each keyer can now be assigned a specific color. Keyers with the same numbers get the same color on all MEs. For example, if you set Key 1 to blue, the source, SEL, and key CUT, and AUTO TRANS buttons will all be blue.

Note: In a split ME configuration, the B-side now uses User Color 9 as the glow color.

New Personality Options

The following switcher personality options have been added or changed.

BKGD Double Press

BKGD Double Press allows you to have a double-press of the BKGD or KEY X button on a Transition Module set up the next transition to take the keys off-air. Double-press the BKGD button to select background and all on-air keys as part of the next transition. Double-press any KEY X button to select all on-air keys as part of the next transition, and not include background.

CC Memory State

Sets whether the Effects Dissolve and Keys Only settings of a memory are used when the memory is recalled with a custom control. Recalling the memory directly is not affected. This allows the custom control to recall a single memory and either have Effects Dissolve and Keys Only on or off. This setting overrides the Auto Recall personality option.

DD Key Delegation

Sets how the keys on the key bus of a Double-Down panel are configured.

Shift All Buses on a Row

Sets whether all buses on a panel row are shifted when a SHIFT button on that row is pressed.

VTR POL Prepped Display

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Allows you to specify whether the current timecode or the remaining time (for a video server) of the currently loaded clip is displayed on the Prepared line on the Preview Overlay when VTR TC is active. The option to remove the prepared line entirely is also available.

Lock Memories On All MEs

You can now simultaneously lock or unlock a memory on all MEs.

RossTalk Updates

The following commands have been added or updated.

Command	Description
<code>CAPTURE channel:source:frames</code>	Perform a capture of the video source (source) using Media-Store channel (channel) for a duration of (frames) frames. For example, <code>CAPTURE 3:PVW:5</code> performs a capture of the Preview video source, using Media-Store channel 3, and with a duration of 5 frames. If you want to capture from an aux, you must replace PVW with the bank and aux (<code>AUX:aux-bank-number:aux-number</code>). For example, <code>CAPTURE 1:AUX:8:3:6</code> performs a capture of Bank 8, Aux 3, using Media-Store channel 1, and with a duration of 6 frames. The switcher will reply when the capture is completed.

Preprocessor Effect in DVE Sequences

Preprocessor effects can now be keyframed in a DVE Sequence. For example, set Defocus to 0 on the first keyframe and then set it to 100% on the second keyframe. When you run the sequence, Defocus will ramp up from 0 at the first keyframe to 100% at the second.

Audio Auto Mute

The Auto Mute feature has been expanded to all audio mixers and is used to have the audio mixer mute a channel when that channel is taken to 0 from the switcher. When the channel is taken back up from 0 the channel is un-muted.

Alternate Device

You can now specify an alternate IP address for any IP device controlled by the switcher. This allows you to have two identical devices and quickly switch to the alternate device, on the other IP address, without having to change your memories or custom controls. The alternate device is treated exactly as the primary device, only the IP address is changed. This feature is only available for ethernet devices.

Device Enhancements

Support for the following devices and commands has been added:

- TASCAM® CD-400U — support for this audio server was added.
- Eject Clip on AMP — the Eject Clip extra option is now available for AMP devices.
- Vinten Robotics — the user can now define the Vinten Camera name separately from the Acuity camera input BNC name.

Bugs Addressed

- Input Status (Input MultiViewer Only) — show the link number for non-sync or missing video inputs to the right of the source name. The SD, HD, and 12G UHDTV1 video signals show 1 in either yellow or red. The 3G UHDTV1 video signals (UHD-2SI and UHD-QSD) show the number of the link 1234 in either yellow or red (1 = link 1, 2 = link 2, etc.). A number is not shown if the video source is present and properly timed.
 - Yellow — the video source for this link is out of sync.



- Red — the video source for this link is not present. (Bug 57864 and 58913)
- Trimming of audio media items in the Global Store has been improved. (Bug 61836)
- For a flying 2D or 3D key you jump to the Sequence menu by pressing the DISS and WIPE buttons on the Transition module at the same time. (Bug 64207)

v8.0a (2018-10-02)

What's New

Global-Store Audio

The Global-Store has been expanded to include up to 4 dedicated audio channels. These audio channels mirror the video channels and can either automatically load the associated audio when a video file is loaded, or can be loaded with a different audio file. Audio files must be 20-bit or 24-bit WAV files at a 48kHz sample rate.

Note: Global-Store Audio is only supported on the newer Frame CPU, 4810AR-002 (1022).

Floating DVEs

The Video Processor MultiViewer can be configured to provide 2 floating 3D DVE keys. These 3D DVE keys are available to every ME in the switcher.

Note: Floating DVEs use MultiViewer resources on the same Video Processor board to route video. The last four sources into the MultiViewer will show black.

High Dynamic Range (HDR) and Wide Color Gamut (WCG) Conversion

The RGB color correctors are used to convert between different SDR and HDR ranges and between color gamuts (WCG). The actual conversion takes the form of contrast matching between SDR and the HDR formats. This contrast matching preserves the colors of the SDR video signal.

Note: HDR and WCG input conversion is only supported on the MultiProcessor Input board. Output conversion is supported on any Video Output board.

HDR and WCG conversion can be applied on the 8 inputs to input video signals, entire buses, or aux bus outputs.

To configure the dynamic range and color gamut conversion of input sources you must set the MultiProcessor Input to a mode that supports HDR/WCG conversion. This will convert the input source to the format that the switcher is operating in. Video signals can again be converted for individual output BNCs.

Supported Color Gamuts:

- BT.709 — color gamut for HD video signals.
- BT.2020 — color gamut for UHDTV1 video signals.

Supported Dynamic Ranges:

- SDR — Standard Dynamic Range.
- HLG — Hybrid Log Gamma.
- PQ — Perceptual Quantizer.
- S-Log3 — Sony® S-Log3.

Supported HDR and WCG Conversion

The switcher supports both dynamic range and color gamut conversion, but not both at the same time.

Note: The switcher uses the color correctors for conversion.



Inputs	Supported Conversion
SDR BT.709	HLG BT.709 PQ BT.709 S-Log3 BT.709 SDR BT.2020 HLG BT.2020 PQ BT.2020 S-Log3 BT.2020
HLG BT.709	SDR BT.709 PQ BT.709 S-Log3 BT.709 SDR BT.2020 HLG BT.2020
PQ BT.709	SDR BT.709 HLG BT.709 S-Log3 BT.709 SDR BT.2020 PQ BT.2020
S-Log3 BT.709	SDR BT.709 HLG BT.709 PQ BT.709 SDR BT.2020 S-Log3 BT.2020
SDR BT.2020	SDR BT.709 HLG BT.709 PQ BT.709 S-Log3 BT.709 HLG BT.2020 PQ BT.2020 S-Log3 BT.2020
HLG BT.2020	SDR BT.709 HLG BT.709 SDR BT.2020 PQ BT.2020 S-Log3 BT.2020
PQ BT.2020	SDR BT.709 PQ BT.709 SDR BT.2020 HLG BT.2020 S-Log3 BT.2020
S-Log3 BT.2020	SDR BT.709 S-Log3 BT.709 SDR BT.2020 HLG BT.2020 PQ BT.2020

Network Security

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The switcher uses a standard ethernet connection for communication between the control panel and the frame, as well as between some external devices and the switcher. Any time your switcher is connected to a public network, it is important to follow certain precautions to ensure that your switcher is not vulnerable.

- Limit Access — Anyone who can access your network could also have access to your sensitive data and equipment. Limit network access by keeping your production equipment on a separate network segment or use a firewall. Contact your IT department for more information about how your network is set up.
- Change Default Passwords — Change the web interface password for your switcher.
- Disable Unused Services — The switcher provides access to a number of default services as listed below. These services can be disabled by Ross Video Technical Support if required for added security.
 - Web Server — This service is used for the web interface and is required for upgrades.
 - FTP — This service is used to transfer images and animations to the switcher for use with the internal Media-Stores.
 - Telnet Server — This service is used for diagnostic and maintenance purposes.

New Video Formats

Support for 1080p 60Hz and UHDTV1 (UHD-2SI) 60Hz has been added.

1K Sequences

The maximum number of sequences has been increased to 1,000.

GUI Scroll Controls

A personality option (GUI Scroll Controls) has been added to switch the virtual knobs on the menu system to larger up and down arrow buttons.

New Custom Controls

A number of new custom controls have been added or expanded.

Bus Maps

A custom control can be used to assign a different bus map to a bus.

Table 4: Special

Command	Description
Keys Incl	Set what is selected on the Next Transition area of the ME.
Pause (-preroll)	Like a Pause CC, except the preroll time assigned to a VTR, GPI, or camera selected on the preset bus is automatically subtracted from the length of the pause. For example, if you want a 12 frame pause before taking a camera on-air and the camera has a 3 frame preroll, you would set the pause to 12 frames. When you run the custom control, the switcher will pause for 9 frames, send the command to the camera, wait another 3 frames for the camera preroll, and then move to the next command.
Set Xpt	Select a source on a specific ME, Aux bus, or AuxKey. Select the ME, Aux bus, or AuxKey and bus that you want to select a source on and use the XPT knob to select the source you want to assign to that bus.
Stop Specific CC	Place an event in a custom control that will stop a specific custom control. Use the Bank and Macro knobs to select specific custom control you want to stop.

**Table 5: Character Generator**

Command	Description
Take Offline	Take the current effect off-air with a transition. Click Change Template and enter a specific template to take off-air.

Table 6: RossTalk

Command	Description
MSPLAY	<p>Play the current media item loaded in the selected Media-Store.</p> <ol style="list-style-type: none"> 1. Press GS, GSA, or ME and use the GS, GSA, or ME knob to select the Media-Store you want to play the media item on. 2. Press Channel and use the Channel knob to select the channel of the selected Media-Store that you want to play the media item on.

On-Air/Off-Air Run Custom Control

You can assign a custom control to a video input where the custom control is triggered when that input is taken on-air, or off-air. A delay (preroll or postroll) can be applied between the transition and the starting of the custom control.

Acuity Virtual Panel – Expanded

The Acuity Virtual Panel is a browser based virtual representation of an Acuity® control panel with menu system. The virtual panel is hosted from the Acuity Rack Panel (ARP) server, a physical Acuity® control panel, or SoftPanel. The Acuity Rack Panel replaces the need for the control panel, with the exception of not having any of the ports (Remote and Tally) that are present on the back of the control panel, and is upgraded in the same way as a normal panel.

Note: A Personality Option (Virtual Panel Enable) has been added to specify whether users can access the Acuity Virtual Panel hosted from the current panel. When enabled (On) a user can connect to the control panel from a web browser and control the panel remotely.

The Acuity Virtual Panel has been expanded to allow you to select the size of virtual panel you want to use, including a new panel designed specifically for OverDrive® operation, as well as Auxiliary Control Panels and Shot Box modules. The interface to the Acuity Virtual Panel has also been expanded to allow greater control and customization.

Virtual Panel Enable

The Virtual Panel Enable personality option allows you to specify whether users can access the Acuity Virtual Panel hosted from the current panel. When enabled (On) a user can connect to the control panel from a web browser and control the panel remotely.

UHDTV1 Improvements

The selection and configuration of UHDTV1 video inputs and outputs has been expanded to improve visibility of which BNCs are used for the video streams as well as the addition of a 3G camera return video stream.

UHDTV1 Video Output

The switcher must be configured to output UHDTV1 at 12Gb/s. Output BNCs are assigned to a UHDTV1 output in groups of four (4). If you want to output UHDTV1 at 12Gb/s, you must set the output group to 12G. If you want to output UHDTV1 in UHD-2SI at 3Gb/s, the switcher will automatically output the four sub images to the four output BNC in the output group.

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When the output group is set to 12Gb/s, the first BNC in the group outputs the 12Gb/s UHDTV1 stream and the third BNC outputs one of the sub images (links) at 3Gb/s as a camera return.

Note: Only the 12G Output can output UHDTV1 at 12Gb/s video.

MultiProcessor Input Mode

The MultiProcessor Input and 12G MultiProcessor Input boards can operate in different modes. Each mode provides a different number of resources, depending on how you want to use the switcher. The number of resources available in each mode is listed below. Each processing video input board in the frame can operate in a different mode.

	Mode 0	Mode 1	Mode 2
Input MultiViewers	1	0	0
Proc Amps/Color Correctors		20	
HDR/WCG	0		20
Level B to A Converters	8		0
Frame Syncs (FS)/ Format Converters (FC)		8	
UHD-QSD to UHD-2SI Converters	0	2	0

Memories

The keypad on the Global and Effects Memory modules will show which memory registers are empty in the selected bank.

You can also delete a memory register by recalling the default state to the register.

Configuration Files

The configuration files allow you to backup and restore the current configuration setting of your switcher. The configuration settings, as opposed the switcher setups, are the working sets that your switcher has stored in `?ash`. This includes the IP addresses and current software version running on each panel and the frame.

Port Monitoring

The port monitoring functionality has been expanded to include ethernet packet information. This information can be used by technical support to debug network device problems.

Panel Logs

The panel stores log data independent of the frame. These logs can be easily copied to a USB drive inserted into the control panel.

MultiViewer Ancillary Data

The Video Processor MultiViewer can have ancillary data embedded in the output stream. The source of the ancillary data depends on the sources assigned to the MultiViewer and which head is being set up.

- Head A — Ancillary data is taken from the first source in the Source List.
- Head B — Ancillary data is taken from either the first or second source in the Source List.

Tallies

The tallies have been expanded to include aux and AuxKey buses, as well as the keys on PGM A, B, C, D, E, F buses. Sources selected on these buses can now be properly tallied as being on-air.

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Miscellaneous Improvements

Quick Row Assignment — To quickly assign a button row to a bus on the standard panel, press and hold the SEL button and use the source buttons on the background and key bus to select which ME, key, or aux you want to assign the row to.

Device Enhancements

Support for the following devices and commands has been added:

- RIEDEL Router — support for this device was added.
- ChyronHego® Prime — support for this device was added.
- Graphite RAVE Audio Mixer — ethernet support for this device has been added.
- Play Skip Q — This video server extra option selects whether the switcher sends a play command immediately, skipping all other commands in the queue (Yes), or puts the play command at the end of the command queue (No).
- EVS® Loop — this device now supports the loop command.

Bugs Addressed

- Multiple pages of Custom Control macros can be accessed on the CC Row using the <<< and >>> buttons. (Bug 39946)
- Source names received from a router can now be used in the internal MultiViewers. (Bug 47298)
- Navigation in the CC shotbox menu has been improved by adding a Prev to allow you to return to the previous page. (Bug 56325)
- All running Custom Control macros are shown on the Main menu of all panels, Master and Satellite. (Bug 59122)
- TSL 5 UMD can now be used to set input labels. (Bug 60384)
- Occasionally, a communication port connected to a CG could lock up. This has been corrected. (Bug 61309)
- The maximum value of the Size parameter for 2D and 3D DVEs is now 11. (Bug 61372)
- We now support 64 cameras attached to a Vinten control system. (Bug 61742)
- You can toggle horizontal blanking between PASS/STRIP regardless of whether SMPTE 352 is OFF or ON. (Bug 62057)

v7.0a (2017-11-24)

What's New

UHDTV1 Video Format

The switcher now supports UHDTV1 3840×2160 50Hz and 59.94Hz in quad link UHD-2SI and can accept UHDTV1 inputs in either 3Gb/s UHD-2SI or UHD-QSD, or 12Gb/s UHD-2SI. Each input consumes 4 input BNCs, even with the single 12Gb/s input.

Note: Only 2 UHDTV1 inputs on the MultiProcessor Input and 12G MultiProcessor Input boards can convert UHD-QSD to UHD-2SI.

Note: Only the 12G MultiProcessor Input and 12G Output boards can process UHDTV1 12Gb/s video signals.

When the switcher is operating in a UHDTV1 video format, the number of MEs and keys is cut in half. A switcher with 4 MEs in SD/HD will only have 2 MEs in UHDTV1. You must have at least two MEs to operate in UHDTV1.



Although it is not recommended to use SD/HD switcher setups in UHDTV1, some register types, such as custom controls, may function properly. Ensure that you test your customs controls before using them on-air.

UHDTV1 Mode

When the switcher is operating in a UHDTV1 video format, the number of available resources is reduced to provide the additional processing power required for UHDTV1 production. The following table provides a quick overview of how the resources are re-allocated.

	SD/HD	UHDTV1
Max MEs (4RU/8RU)	6/8	3/4
Keys per ME	8	4
Chroma Keys per ME	2	1
2D DVE Channels per ME	16	8
3D DVE Channels per ME	2	1

Bugs Addressed

- Custom Control macro editing has been greatly improved. (Bug 58858 and Bug 58605)
- The number of concurrently executing Custom Control macros has been increased to 28. (Bug 58791)
- An on-screen keyboard is now available for entering CG folder names. (Bug 58780)
- Previous legacy AUX panels could erroneously go into programming mode. This has been corrected. (Bug 57856)
- The number of Panel Network ports has been increased to 64. (Bug 57850)
- The Sony Camera driver has been renamed VISCA. Sony Camera is a target machine of VISCA. (Bug 57797)
- Support for SRCA and SRCB has been added for the Wheatstone D1. (Bug 57730)
- Custom Control macros can be used to set keyer clip and gain values. (Bug 57598)
- To control a 360 Systems Diccart a Comtrol DeviceMaster® Ethernet Device Server is required. (Bug 57558)
- Using memory attributes the user can choose whether key type is included in a memory recall. (Bug 57356)
- For a 2D fly key Automatic layering mode is supported in channel management. When Automatic is selected the larger of the two boxes will be on top. (Bug 56042)
- The Wheatstone audio mixer can no longer be controlled using a frame port. It must be controlled using a panel port. (Bug 54808)

v6.0a (2017-03-10)

What's New

Acuity® Virtual Panel

The Acuity Virtual Panel is a browser based virtual representation of an Acuity® 3 control panel with menu system that is hosted on the Acuity Rack Panel (ARP) server. The Acuity Rack Panel replaces the need for the control panel, with the exception of not having any of the ports (Remote and Tally) that are present on the back of the control panel, and is upgraded in the same way as a normal panel.

The tally ports on the frame can be used instead of the panel tallies.

High Dynamic Range Conversion (HDR)

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The RGB color correctors are used to convert between High Dynamic Range (HDR) and Standard Dynamic Range (SDR). The actual conversion takes the form of contrast matching between SDR and HDR. This contrast matching preserves the colors of the SDR video signal. HDR conversion can be input based using the RGB color correctors, or bus based (output) using the bus based RGB color correctors.

Only the HLG600 and HLG1200 HDR formats are supported at this time.

Live Edit Decision Lists

Edit Decision Lists are files used by non-linear editing (NLE) suites to aid in post-production. Your switcher can capture EDL data in a file that you load into your NLE suite.

The switcher supports the CMX3600 format for recording EDL files.

Note: The CMX3600 specification only supports a maximum of 999 events per ME or aux bus. If another event occurs beyond the 999 limit, a new file is created using the incremental file number.

SideBoxNet Support

The ethernet based SideBoxNet enclosure is now supported with the SideSlideNet, SideShotNet, and SideStick modules. This enclosure connects to the switcher over standard ethernet.

You can connect up to 15 unique SideBoxNet enclosures to a switcher. The number of each SideSlideNet, SideShotNet, and SideStick modules depends on the type of module you are connecting.

MultiViewer Layouts

The number of MultiViewer layouts has increased to 41.

Bugs Addressed

- WebDAV is no longer supported for transferring files onto the switcher. We recommend the use of FTP instead. (Bug 57433)
- The number of destinations and sources for a router can now be configured independently. (Bug 57118)
- MultiViewer tallies can now be configured to display on the MultiViewer label. (Bug 55646)
- You can rename a device port. This new name is used when referencing the port on the menus. (Bug 56836)
- RossTalk-in devices can be configured on the Frame as well as on the Panel. (Bug 45430)
- The Recall Empty Memory personality option can prevent memories that are empty, deleted, or marked as Don't Recall from being recalled. (Bug 44834)
- A custom control can be used to recall a specific memory on one or more MEs. (Bug 34379)
- After a restart any locked and pre-assigned Aux bus will be retained. (Bug 39428)
- The Menu Number personality option allows a user to jump to a menu directly by entering a menu number. (Bug 54425)
- The attributes for each memory can include attributes for each global store and each ME store.
- The Open Shortcut on Top personality option forces the menus launched from the quick navigation bars on the left of the menu to open in the top menu. (Bug 56594)
- The Personality option “Menu Module Indicator” turns on or off an indicator in front of the menu name to indicate which menu the menu module is currently serving. (Bug 46686)
- A MultiViewer box can be turn on/off by clicking the box in the MultiViewer Layout Editor. (Bug 46356)
- The roll clip feature can be disabled on a per input basis. (Bug 54338)
- The Custom Control Bank/Function Delete has been added to allow easy deletion of macros. (Bug 52855)
- The Custom Control Bank/Function Attach has been added to allow the user to turn on/off the Personality option CC/Macro Attachments. (Bug 53745)



- From the video server remote control menu, the user can now display the list of clips on the video server. (Bug 55281)
- The in-point and out-point indicators in the video server menu are now green and red for easy visibility. (Bug 41826)
- The DVE menu can now be on the top and bottom menu controlling two independent keys. (Bug 54485)
- Acuity SoftPanel can now be configured with a static IP address. (Bug 32367)

v5.1a (2018-10-02)

What's New

Evertz® IP Input/Output Boards

Support for the Evertz® IP Input and Evertz® IP Output boards has been added.

Bugs Addressed

- No bugs were addressed for this version of software.

v5.0a (2016-10-25)

What's New

Important: The upgrade to version 5.0 requires a new OS and hardware to be added to the panel during the upgrade procedure. Contact Ross Video technical support for information on performing the upgrade, and for the hardware and software needed for your control panel.

Note: It is recommended that you upgrade to version 4.0 prior to upgrading to version 5.0.

Double-Down Control Panels

Note: Double-Down is not available as a field upgrade.

The new Double-Down control panels add another source button row to each panel row as well as six dedicated custom control function buttons.

Double-Down Crosspoint Module

To the right of the source button row is a mnemonic button that shows what bus the row is currently assigned to. Each source button row can be assigned to a bus by pressing the mnemonic button to the right of the row. If you press and hold the mnemonic button you can use the source buttons on that row to quickly assign the row to a bus.

- Key Bus Rows — the upper two source button rows can only be assigned to keys, aux buses, or utility buses. The upper row auto follows even numbered keys and the button row auto follows odd numbered keys.
- Program/Background Bus Row — the middle source button row can only be assigned to an ME background or utility bus 1.
- Preview/Preset Bus Row — the bottom source button row can only be assigned to an ME preset or utility bus 2.

Note: Due to the addition of the mnemonic buttons, the number of source buttons per row has been reduced by two.

Double-Down Custom Control Module

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The custom control module shares all the functionality of the crosspoint module with the addition of the standard custom control buttons and the six custom control function buttons.

Button	Function
Pause (Hold)	allows you to insert a pause or hold into a custom control you are recording, without using the menu system.
Record	allows you to record a custom control without using the menu system.
Delete	allows you to delete a custom control. Press and hold the Delete button and Delete press the custom control button for the custom control you want to delete. Press the custom control button again to confirm the deletion.
Bank	allows you to select any custom control bank without assigning each bank to a custom control button.
Stop CC	allows you to stop a, or all, running custom controls. The Stop CC command cannot stop a custom control that is at hold.
Attach	allows you to turn the CC/Macro Attachments personality option on or off.

Tip: These functions, including the new Delete and Attach, are also available as custom control shortcuts that can be assigned to custom control bank buttons.

Aux Power Ports

The aux power ports on the back of the control panel provide power for the touchscreen display and an auxiliary control panel.

Caution: Only use the cables provided to connect your Acuity Auxiliary Control Panel or Touchscreen display to the Auxiliary Power module.

Advanced UltraChrome Mode Improvements

The advanced mode of UltraChrome has been im

proved to allow for more accurate adjustment of values. In the past, adjusting one value could change other values to ensure valid video, but it was difficult to identify which values were being changed. Now, when you adjust a value, only that value is changed.

New Video Format (1080p 25Hz)

The switcher now supports 1080p 25Hz with an input reference format of 576i or 1080i 50Hz.

New Help System

The pdf version of the manuals has been replaced by a fully searchable web-help system.

Bugs Addressed

- Vertical pairing on the Yamaha series of audio mixers is now supported by the Acuity switcher. (Bug 35551)
- Locked aux bus sources are now retained after a reboot. (Bug 39428)
- “Delete CC” has been added to the list of CC function buttons. (Bug 45614)
- Multiviewer layouts can now be copied and pasted for easy editing. (Bug 45999)
- A still store menu has been added to the ME Memory Attributes Setup to enhance still store control for memory recalls. (Bug 47417)
- Crosspoint maps can now be copied and pasted for easy editing. (Bug 48898)
- Using the RossTalk command SAVESET will create the set if the supplied set name does not exist. (Bug 49854)



- The Roland M5000 has been added as a generic MIDI audio mixer. (Bug 52892)
- Split keys on aux bus keys is now supported. (Bug 53277)
- The Studer series of OnAir mixers is now supported via the Ember control protocol. (Bug 53651)
- For the Wheatstone series of audio mixers, SRC PRST A and SRC PRST B are now supported. (54365)
- OverDrive now receives correct router source names from Acuity. (Bug 54930)
- The file format of captured images has been changed from TGA to PNG. (Bug 54618)
- The Vizrt CG driver no longer locks up if an invalid template is resumed. (Bug 55026)
- Video server IDs can now be retrieved while in the VTR CC menu or the VTR remote control menu. (Bug 55281)

v4.0a (2016-10-09)

What's New

MultiProcessor Input Board

This new MultiProcessor Input board provides 20 SDI input BNCs as well as video processing capabilities for frame synchronizers and format conversion (FSFC), an input-based MultiViewer, and input proc amps and color correctors.

Frame Synchronization

The MultiProcessor Input board has 8 input frame synchronizers that can be used to correct mistimed, or drifting, video input signals. The frame synchronizers cannot completely correct badly formatted video, mistimed switches, signal drops, or similar issues. Frame synchronizers are only available on the MultiProcessor Input board and cannot be used on an input that is not on that board.

Format Conversion (Level B to A only)

The MultiProcessor Input board automatically converts 1080p 59.94Hz level B or 1080p 50Hz level B to level A at the same frequency.

Note: Format conversion does not support embedded audio.

Important: Format conversion of Level B to A causes a 2-line delay in the MultiProcessor Input board for that input. All Level B inputs must be advanced by 2-lines before they come into the switcher.

MultiViewer

The switcher supports both a dual-headed video processor MultiViewer and a single-headed input MultiViewer. Both types of MultiViewers allow you to view up to 20 video sources in one of 37 different grids and include mnemonic source names and red and green tallies on every box.

- Video Processor MultiViewer — has access to every input on the switcher, has both an A and B head, and replaces an ME in the switcher.
- Input MultiViewer — has access to only the input sources fed into the MultiProcessor Input board, and is not available on the standard Video Input board.

Color Correction

Color correction is performed by either Processing Amplifiers (Proc Amps) in the HSL (Y-Cr-Cb) color space or by RGB Color Correctors in the RGB color space. Both Proc Amps and RGB Color Correctors allow you to apply color correction to video sources on the fly to input video signals, entire buses, or aux bus outputs.





- Input Based Correction — color correction is applied to the video input regardless of which ME or Aux Bus it is selected on. Input-based color correction is not stored in switcher memories. Only supported on the MultiProcessor Input board.
- ME Input Based Correction — color correction is applied to all the video inputs to the ME. Not supported on the MultiProcessor Input.
- ME Bus Based Correction — color correction is applied to the output of the assigned bus. Unlike the other color correction types, bus-based color correction is stored and recalled with memories. This allows you to include a color correction element as part of an effects dissolve.
- Aux Bus Based Correction — color correction is applied to the output of an Aux Bus. Like input-based color correction, Aux Bus color correction is not stored in switcher memories.

Color correction is additive, allowing you to apply any combination of Proc Amp and RGB Color Corrector based adjustment to a video signal on the input, as well as on the bus. If multiple color corrections are applied, the input-based correction is applied first, and the bus-based correction is applied after that.

3D DVE Warp Effects

The dual-channel 3D DVE card provides 1 channel of 3D DVE Warp resources per ME.

- Film — applies a film effect to that makes the video appear as if it was produced during different ages, such as the 1900s or 1920s, or was produced on amateur equipment.
- Heart — places the video inside a heart shape.
- Lens Flare — creates a point light source and a series of lens flares.
- Magnify — creates an area within the video that is magnified.
- Melt — creates an effect that makes the video appear to melt.
- Obscure — creates a pixelation effect bound in an oval or rectangle that is positioned over the video.
- Page Roll — rolls up the video like a piece of paper. This effect can only be applied to a background or preset pattern key.
- Pixie Dust — creates an exploded pixelation effect bound in an oval or rectangle that can be positioned over the video.
- Ripple — creates a ripple effect, like dropping a stone into a pool of water.
- Split — splits the video in half and moves both halves away from each other.
- Stretch — stretches the video horizontally and vertically

Split ME Functionality

The Split ME functionality allows you to take advantage of the configurable program outputs feature to create two semi-independent MEs (Program A and Program B) in a single ME. To set up the split ME, you must assign the Program B program and preset outputs to the Utility 1 and 2 buses. This gives the B-side of the ME independent outputs.

The configurable program output functionality also allows you to further split the MEs by separating the keyers to one program output or the other, or have them applied to both MEs.

Keep the following in mind when working with a split ME.

- Sources selected on the background and preset buses of the A-side or B-side are independent of each other.
- You can transition the A-side separately, the B-side separately, or both together.
- Keys are independent of the A-side or B-side and appear in the output of either side depending on whether they are included in the configurable program output.
- The A-side and B-side can have different ME transition rates. If both sides are selected and a transition is performed, the A-side and B-side will use their set transition rates.



- If the A-side and B-side are both performing a sequence they must start transitioning at the same time.

Control Panel Updates

The Acuity™ control panel has been updated to allow better access to the Split ME functionality and the 2D/3D DVE resources.

Transition Module

The TRANS PV and USER buttons on the transition modules have been replaced and the PGM A and PGM B buttons have been added.

The PGM A and PGM B buttons allow you to assign the panel row to either the A-side or B-side of a Split ME.

Tip: The transition preview (TRANS PV) functionality can now be achieved by pressing and holding the transition type button and performing the Auto Trans or Fader transition.

Keyers Module

The BORD ON, BORD OFF, and FLY KEY buttons on the keyers module have been removed and the BORDER, 2D DVE, and 3D DVE buttons have been added.

The BORDER button combines the functionality of the BORD ON and BORD OFF buttons. Toggle the button to turn the border on and off. Turning the border on uses the same type of border that was last used for that keyer.

The 2D DVE and 3D DVE buttons function the same as the FLY KEY button except they specify whether the 2D or 3D DVE resources are used.

Bugs Addressed

- TSL UMD output is now supported by the Acuity switcher. (Bug 49044, 50417 and 51350)
- The number of MultiViewer layouts has been increased from 20 to 50. (Bug 50076)
- The port number associated with an IP address can now be entered using the global Memory module. (Bug 32816)
- The Panasonic AW RP-120 camera controlled can now be controlled via IP. (Bug 39496)
- Sources and destination assignments on the RCP-ME/QE have changes. Please refer to the RCP Auxiliary Control Panels information sheet. (Bug 48124)
- The Sony BRC900 IP camera controlled can now be controlled via IP. (Bug 48866)
- Custom Control macros can be used to set Tallies, Contact Closures, and GPIO from CC (Bug 49057)
- Toggling the preset source for a fader on the Wheatstone audio mixer is now available via a custom control. (Bug 49775)
- Support for PFL control for the Wheatstone E-Series of audio mixers has been added. (Bug 50504)
- The default value for the Auto Key Alpha Personality option has changed to Strict. It may be necessary to update your installation following an upgrade. (Bug 50752)

v3.0a (2015-06-30)

What's New

4K-UHD Production

Note: This configuration is no longer required as of v7.0a which supports UHD.

The MultiFeed feature allows you to use the utility buses of an ME as the background and preset sources for the configurable program outputs of an ME. If you use multiple configurable program outputs from the same

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ME, you can have two program outputs with different background sources that transition together. These separate program outputs can be further enhanced by excluding some keys from each program output. This allows you to have separate keys for each program output. For example, you can have key 1 included in Program/Preset A but excluded from Program/Preset B and key 2 is included in both. This allows key 1 to be transitioned on or off-air for Program A without affecting Program B and key 2 to be common across both outputs.

If you set up two MEs like this and then set the second ME to auto follow the first, you now have four separate program outputs from 2 MEs that are tied together. This is the basis for a 4K-UHD configuration stitching together (Square Division) or combining (2 Sample Interleave (2SI)) four Full-HD (1920×1080p) signals to make a single UHDTV1 (3840×2160p) image. Both methods involve separating the 4K-UHD signal into four separate streams before going into the switcher and then combining them again after.

8 Keys Per ME

The number of keys available on each ME has been increased to 8.

Configurable Program Outputs (MultiFeed)

Each ME can have multiple program and preview outputs that can be configured to include only select keys or replace the background and preset buses with the utility buses.

Note: Configurable program outputs are not available for a Mix/DSK (half ME).

Including or excluding a key from a program output does not change the on-air status of the key, only whether the key is included in a particular output when the key is on-air. The key must still be transitioned on or off-air from the transitions area.

Note: All the program and preview outputs of an ME are tied into the same Transition module and cannot be transitioned separately or at different rates.

Output Re-mapping on Upgrade

When you upgrade, the existing clean feed outputs are re-mapped to specific configurable program outputs. Clean feed 1 is mapped to Program C and clean feed 2 is mapped to Program D. Layer mode and chroma key alpha outputs must be configured for the new outputs.

Installation Menu Safe Configuration Changes

When you enter the Installation menu, the switcher goes into a safe configuration, or locked mode. In this mode you cannot use the control panel to select sources, perform transitions, recall memories, or run custom controls, among other things. Press Swap to move the Installation menu up into the top menu region to return the switcher to normal operation.

MultiViewer Improvements

If the switcher is operating in a 1080p 50Hz or 59.94H video format, the MultiViewer output will now also be in the 1080p 50Hz or 59.94Hz video format.

The MultiViewer now supports 37 different grids.

RCP Remote Control Panel Support

The switcher now supports the RCP-ME and RCP-QE remote control panels directly over ethernet without the need of the NK-NET or NK-IPS.

Status Reporting

The status pages on the Web UI of the switcher have been expanded to include software status, system status, and frame boards. A report of the current switcher status can be downloaded from the System Status page.



Other Improvements and Features

- A MultiViewer option now comes free with each ME. If you purchase the ME option, and have the hardware installed, you can now have that ME operate as normal, or be configured as a MultiViewer. You cannot have both the ME and MultiViewer active at the same time.
- The MultiDSK option has been removed as all MEs now have 8 keys. As a result, the fixed output BNCs for this option are now fully configurable.
- Layer Mode has been rolled into the configurable program outputs. If you have a custom control that enabled layer mode, you must re-create it using the new implementation of layer mode.
- 3D DVE now supports key combiner with preset pattern keys.
- Black borders around MultiViewer frames can now be turned off.
- You can now select an ME-Store as a source on an Aux bus and MultiViewer.

Bugs Addressed

- Recovery handling for Vizrt CG disconnection has been improved. (Bug 46209)
- Previously, changes to the labels on Grass Valley NV9000 router were not picked up by the switcher until the switcher rebooted. (Bug 46247)
- Disk Store and Recall progress bar behaviour has been improved to better reflect the true progress of the operation. (Bug 47440).
- Aux Bus follows can now be assigned to crosspoint buttons as sources. (Bug 45223).
- When transferring image files from a Mac to the switcher hidden meta data files are now ignored. (Bug 41715).
- The number of shift buttons in a bus map has been increased. (Bug 44829).
- It is now possible to recall factory defaults for all elements at once. (Bug 44800)
- On a soft panel it is now possible to copy image files from the switcher to a USB stick. (Bug 45134)
- Global and ME Store alpha associations are now defaulted to Channel 1 & 3 and Channel 2 & 4. (Bug 46569)

v2.0a (2014-12-15)

What's New

3D DVE

Support for the 3D DVE channel card has been added. This card installs on the 3G Video Processor board to provide 3D DVE resources for the MEs provided by that board.

Note: To add 3D DVE to an existing ME in your switcher, you must install the 3D DVE channel card onto the 3G Video Processor board for that ME. Please contact Ross Video technical support for details.

The 3D DVE option allows every type of key to be squeezed or zoomed, cropped, repositioned, and rotated in 3D space. It can also perform 3D key or background transitions, or build sequences with complex timelines, keyframe editing, and quick sequence recall. 3D DVE also comes equipped with preprocessor effects such as mosaic, posterization, colorization, 3D borders, timeline sequences with holds, and a lot more.

20 Input MultiViewer

The number of inputs to the MultiViewer has been increased to 20. This allows you to have 10 unique video sources on each head of the MultiViewer. Each MultiViewer head can only show a maximum of 10 video sources.

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The video sources coming into the switcher have been separated into the input sources and the input BNCs. Each input BNC on the switcher can have one or multiple input sources assigned to it. This can allow configurations such as multiple device control or device redundancy. For example, to access both the CG and clip functionality of your graphics processor you can assign two input sources, one set up as a CG and the other as a video server, to the same physical BNC from the device. You can then use two source buttons to access the different functionalities of the same device.

Color Picker

The color picker allows you to quickly select the color that you want to use for a border, background, matte, or a button color scheme. To select a color, you can either select the color you want on the color wheel, or expand the color picker to allow you to select a color based on the HSL/RGB values, the web-safe color name, or the eyedropper. A fixed palette of default colors is also shown.

To expand or collapse the color picker, press the $<>$ button.

1080p 29.97 Video Format

The switcher now supports the 1080p 29.97Hz video format.

Delegation of Keyer Source row for DVE Channel

When in the channel management menu, the user can delegate the keyer bus to a particular DVE channel by pressing the “CHNL MGMT” button in the keyer area. Repeated presses of this button while in this menu cycles through DVE channel 1 and channel 2. Double pressing selects both channels.

Device Enhancements

CGM support was added for the Studer Vista audio mixer in V2.0a.

Bugs Addressed

- A definable safe title area was added to preview with overlay. The safe title area is enabled using the second button from the right in the panel monitoring area. (Bug 9007).
- Performing a video capture using custom controls used to behave differently than performing a capture from the capture menu. (Bug 16939)
- When renaming a still, the correct still was not automatically highlighted in the still selection page. (Bug 17182)
- When using the 1080pSF23.98 video format, cuts on AUX bus outputs would occur on the wrong video line. (Bug 19146)
- A frame counter was added to the capture menu to show progress when capturing an animation to the global store. (Bug 22136)
- The ability to copy stills from the still store to the USB drive was added in V2.0a. (Bug 31249)
- The Keyer ‘Select’ button in the keyer area is now stored and recalled by the switcher memory system. (Bug 35982)
- Two line crosspoint source mnemonics have been improved to allow the operator to reverse the order of the source names when the bus is shifted. (Bug 43065)
- The ability to assign a bus map to a single ME has been added in V2.0a. (Bug 43066)
- The ability to display the bank, bus, and source name for Aux Monitor signals has been added to the MultiViewer in V2.0a. (Bug 43067)
- A new personality option has been added to change the order of the keys shown in the ME display to follow the chosen key priority. (Bug 43068)
- The number of VTR clips available has been increased from 300 to 800. (Bug 43454)



- A new custom control “Stop CC Group” has been added to the insert special menu. (Bug 43458)
- The Click Effects “Blaze” has been added as a valid VDCP target machine. (Bug 43465)
- The number of ROSSTALK GPIOs has been increased from 64 to 40000. (Bug 43772)
- A shortcut to the MultiViewer Layout Assign menu has been added to the panel menu toolbar. (Bug 44768)

v1.2a (2014-07-30)

What's New

This release adds support for:

- 4810AR-014 Power Supply
- 4820AR-281 Aux 24 Panel
- 4820AR-282 Aux 32 Panel
- 4820AR-283 Aux 40 Panel

Bugs Addressed

- No bugs were addressed for this version of software.

v1.1a (2014-06-16)

What's New

This is the first release of software for the Ross Video Acuity switcher.

Bugs Addressed

- No bugs were addressed for this version of software.

Getting Help

- 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**

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