Products	VRC300
Date	May 28th, 2018
Version	5.01.02

The version (s) indicated here above has (have) been tested and validated by the Technical Support Department.

Technical Notes:

▶ **Important:**

- **Iterations created with firmware v4.00.10 (or earlier versions) are NOT COMPATIBLE with this new firmware.**

- **It is highly recommended that you first update your LiveCore™ device(s) with the latest firmware available (v4.02.39 or above).**

New features:

- **Ability to automatically reload the last session at startup**: the VRC-300 automatically logs the last user in, loads the last Show, and loads the last Iteration on boot. To enable this feature, please go to the Auto Load tab in the System Settings menu.
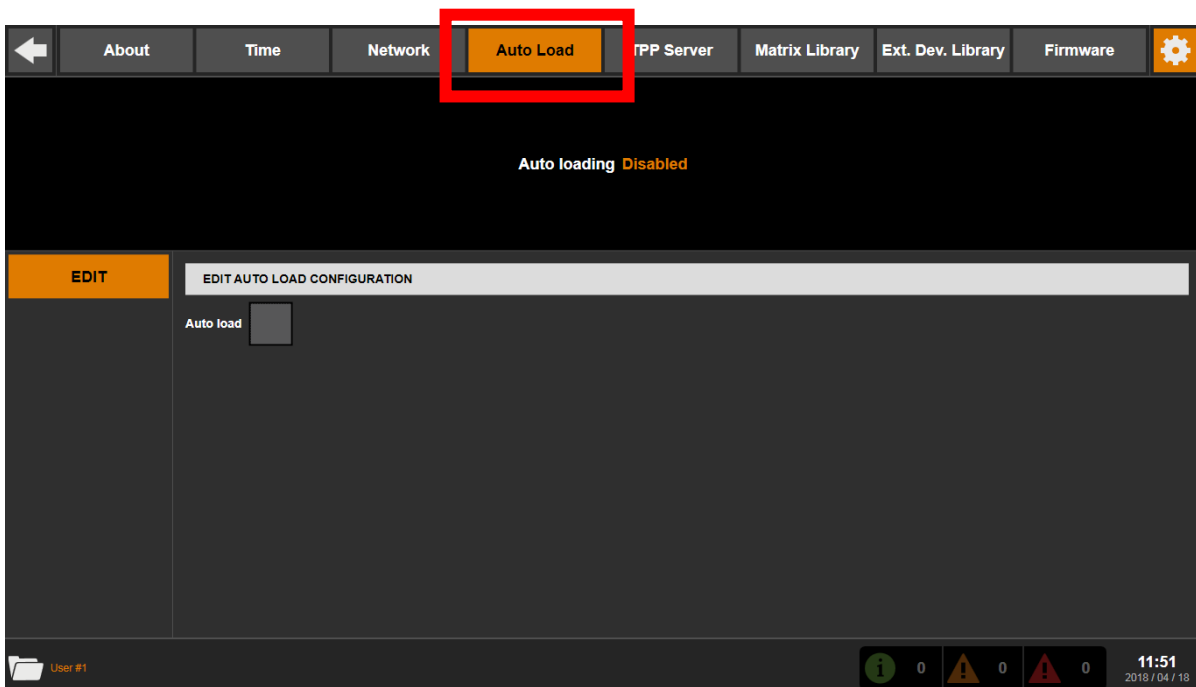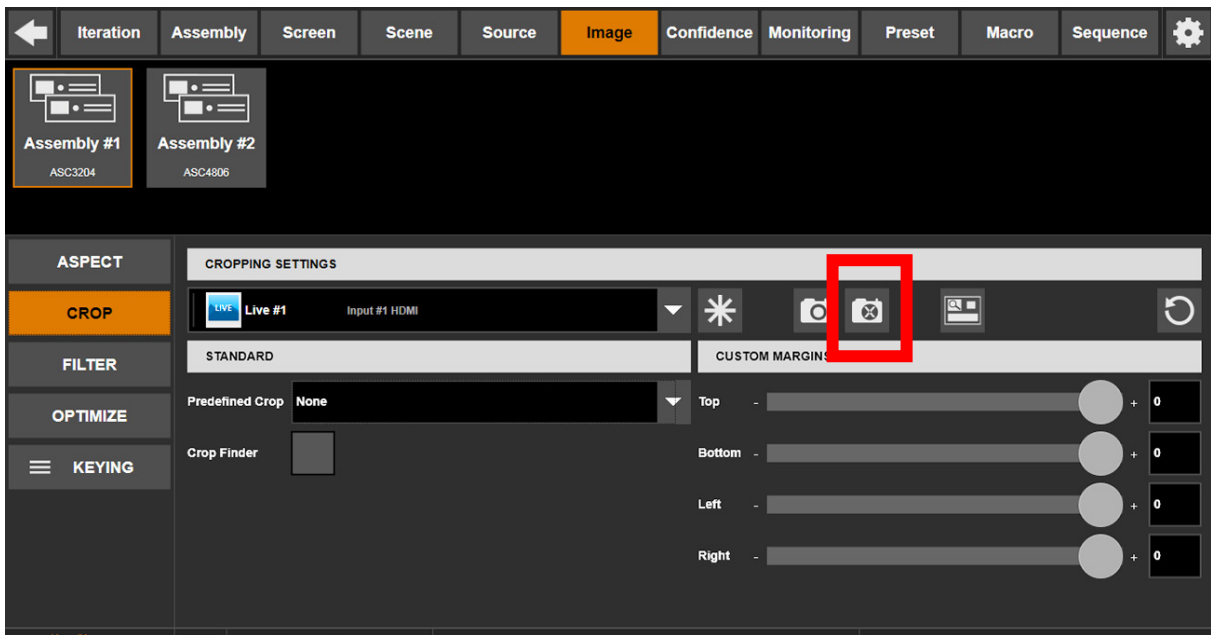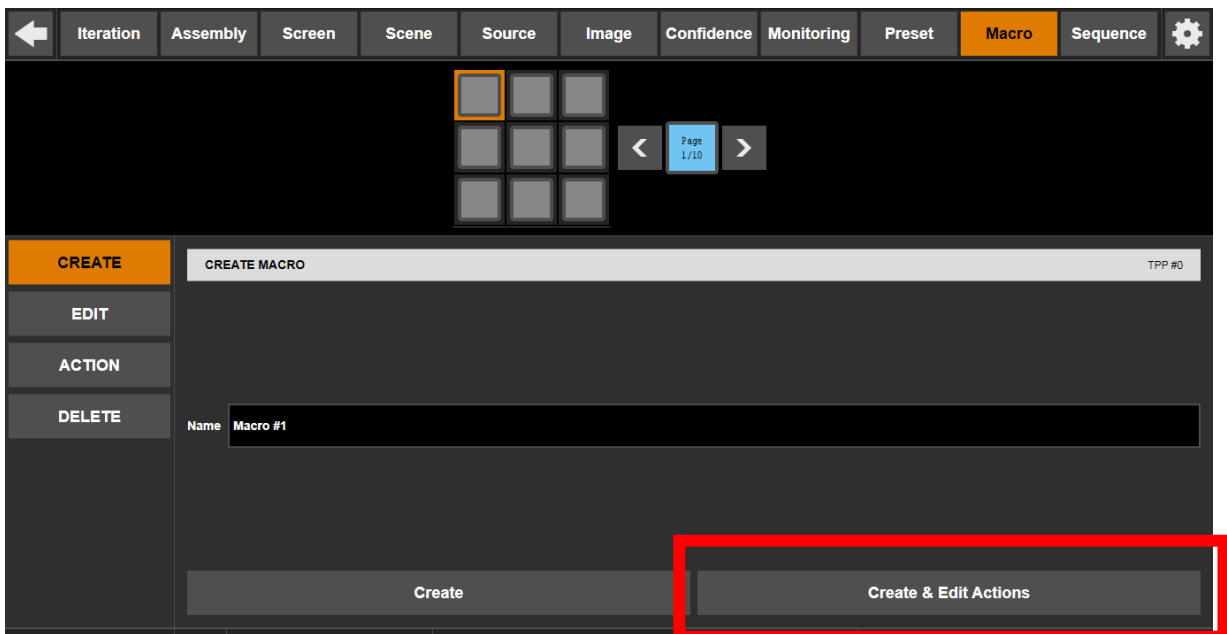
Improvements:

- Add a matrix descriptor to be able to control a LiveCore unit as a matrix.

- In the Source/Map menu, **quick naming of Native/Standard sources** using the name of one of the streams mapped into it.
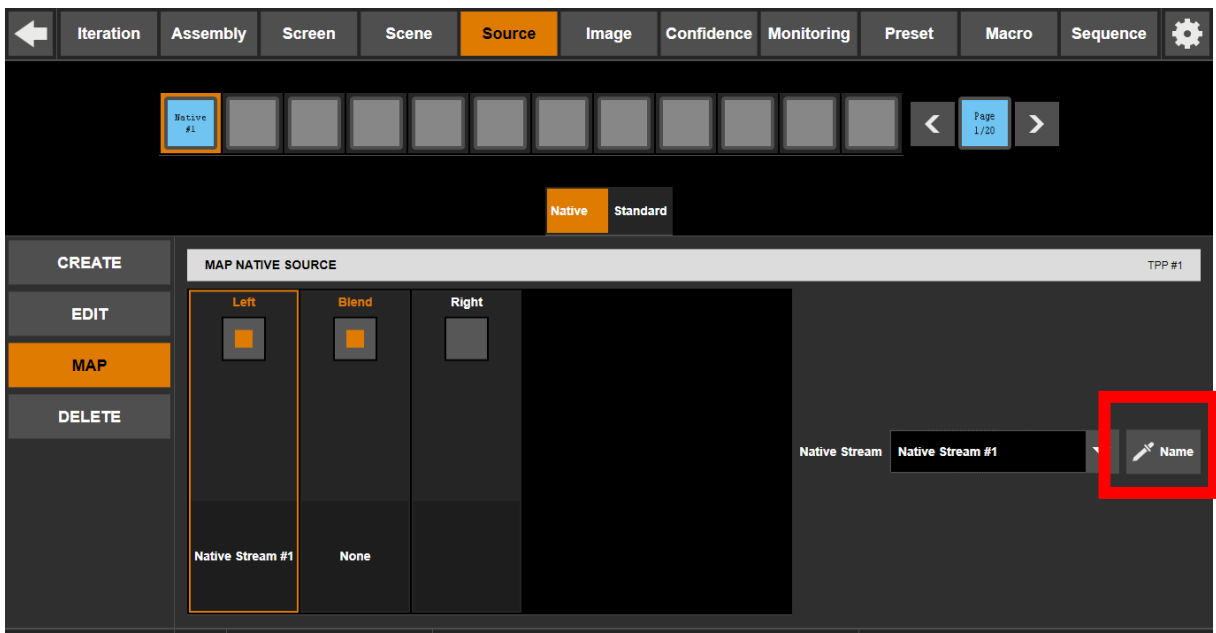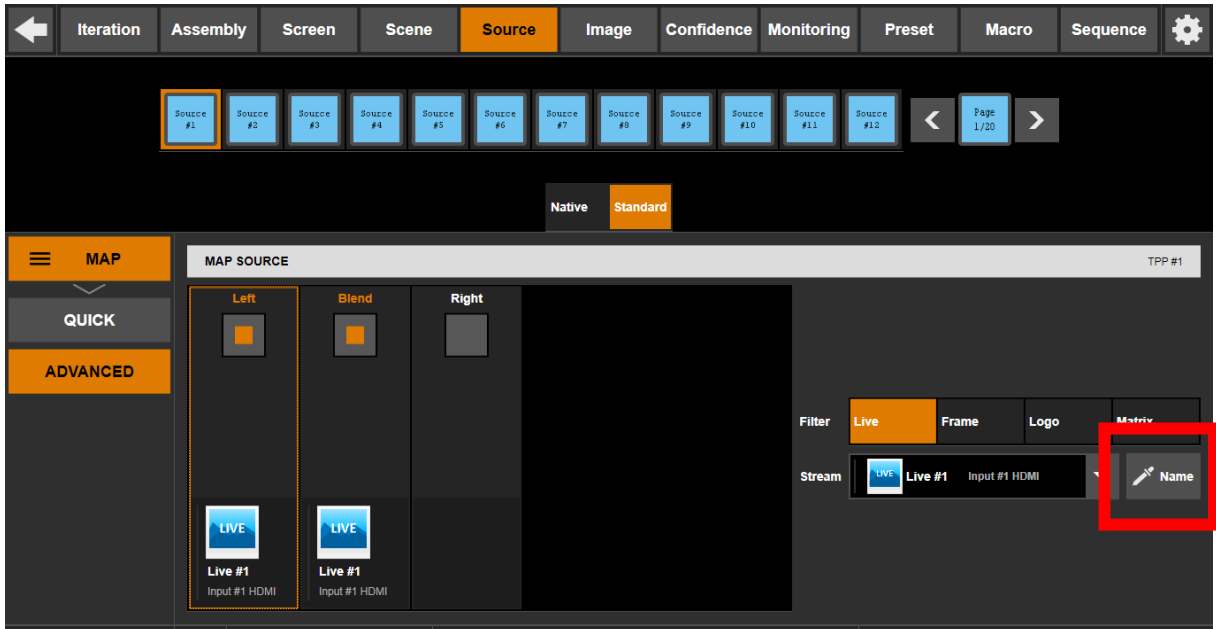
- **Reset of the stream's snapshot to the default icon**: simply delete the snapshot.

- **New "Create & Edit Actions" option the Macro editor**.

- **New "Create & Map" option the Source editor**.
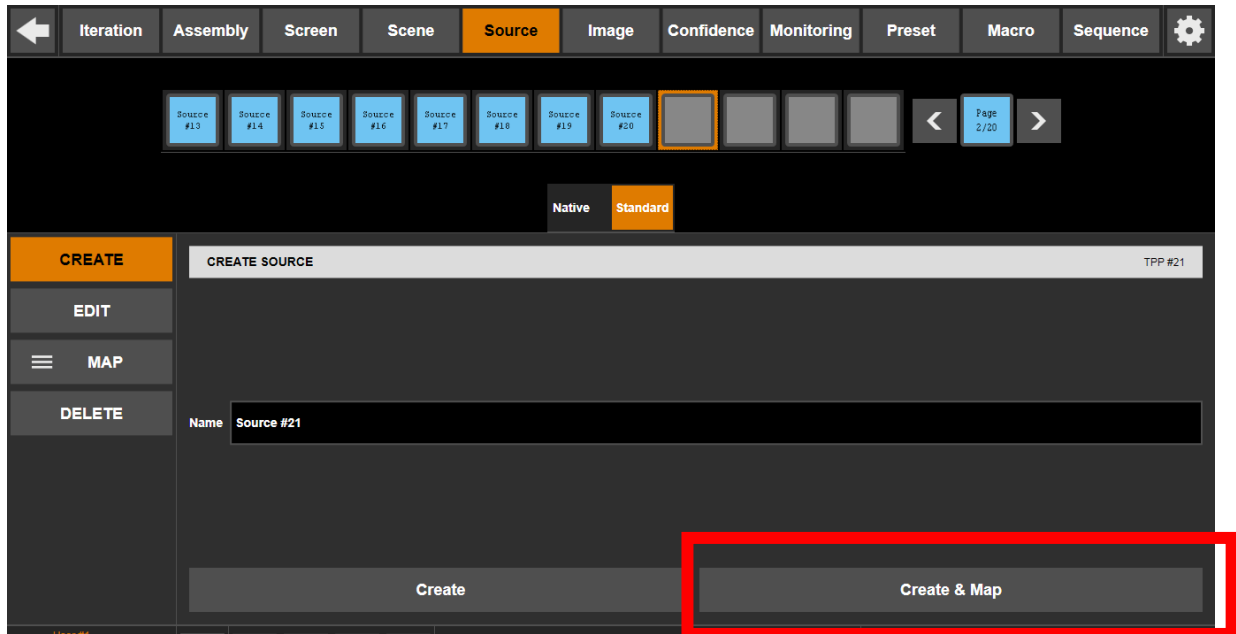
- In the Create/Edit/Delete menus of the Macro and Source editors, display the slot number of the selected item.

- **Copy of streams from another assembly**: in the Assembly/Stream/Quick menu, it is possible to copy the streams from another assembly.
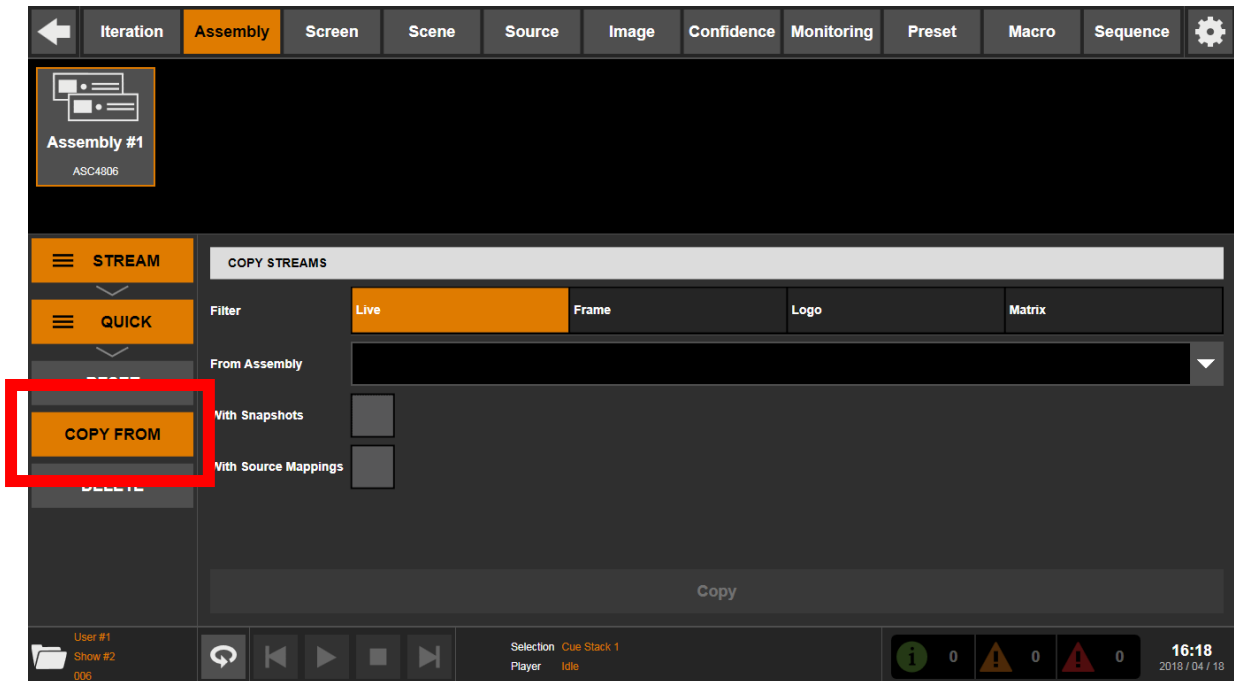
- **Configuration of the handshaking options per Matrix / External Device**.

- **New functions implemented in the Third-Party Protocol (TPP)**:
  - o Configuration of the next transition's duration
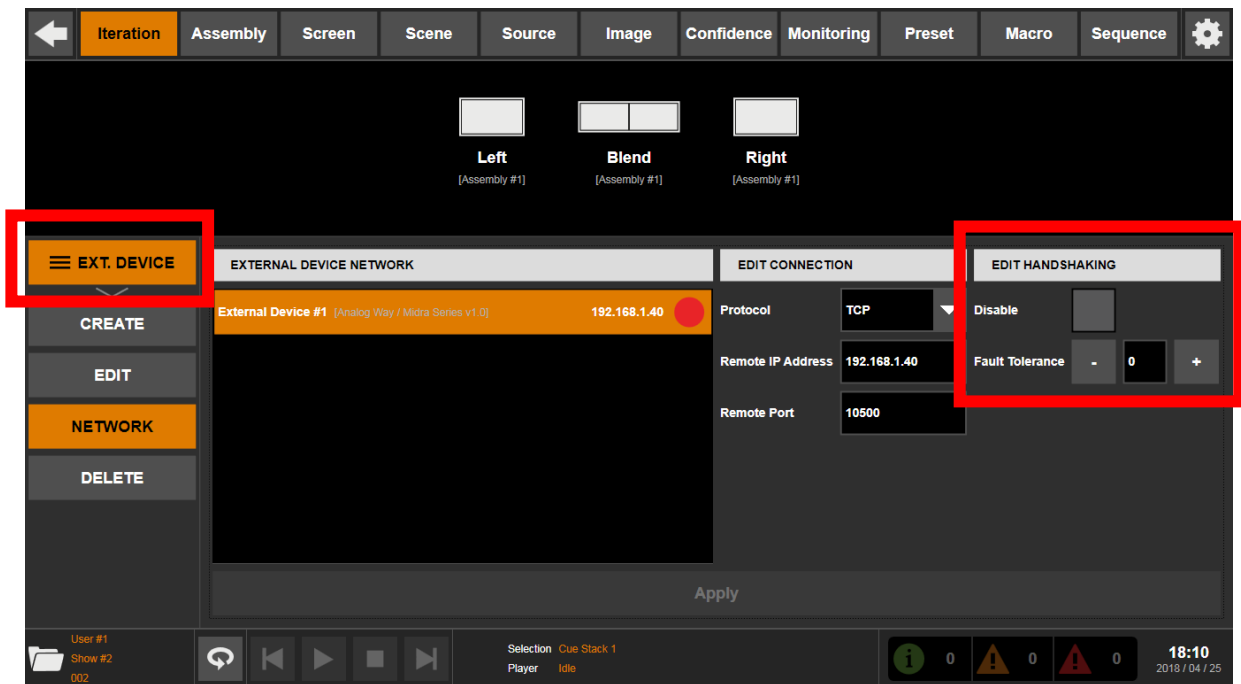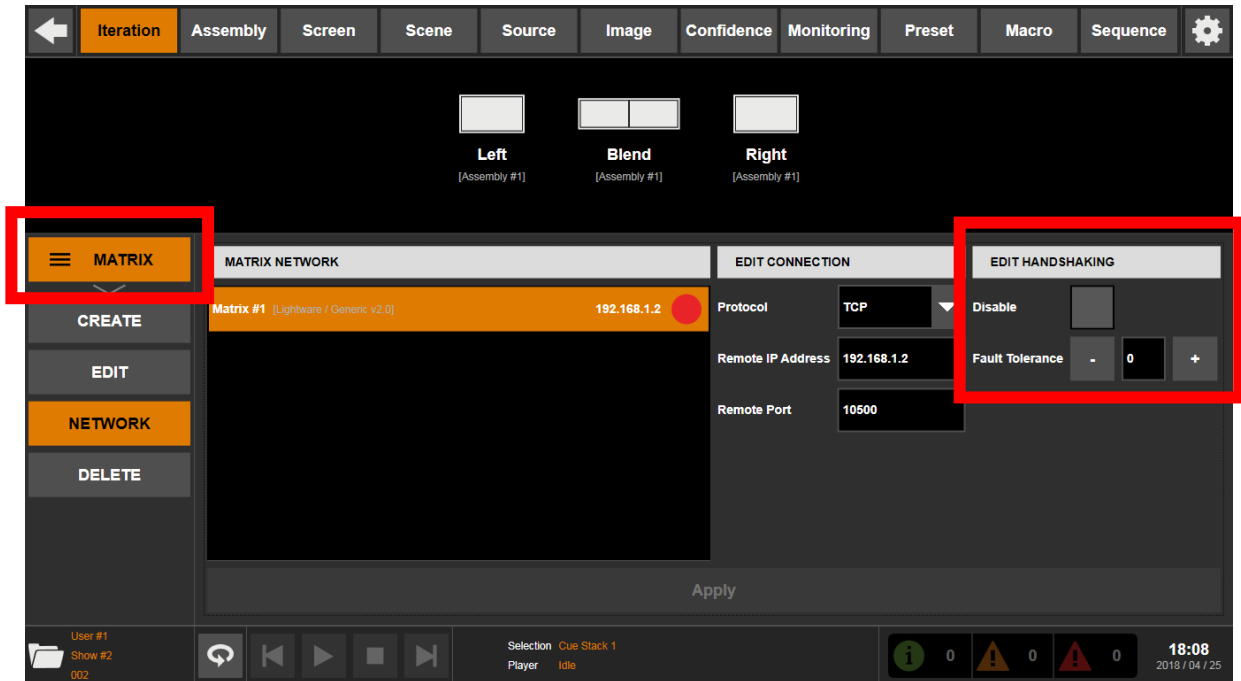 - o Configuration of the Preset Toggle option.

- **Support of Purelink PM routers**: a new matrix descriptor is available.

- **Support of the piXtimer pro application**: a new external device descriptor is available.

- **Improvement of the log files**: a readable date-time stamp is regularly added in the log files for troubleshooting.

Bug fixes:
- In the Assembly Editor, menu Stream/Matrix, the list of streams is not updated when the input of an existing stream is changed.

- The preset loaded on the Preview is not reconfigured properly after changing parameters of the scene (size, number of layers, change of region's position…).

PREVIOUS

VERSIONS

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Products	VRC300
Date	December 19th, 2017
Version	5.00.14

The version (s) indicated here above has (have) been tested and validated by the Technical Support Department.

Technical Notes:

▶ **Important:**

- **Iterations created with firmware v4.00.10 (or earlier versions) are NOT COMPATIBLE with this new firmware.**

- **It is highly recommended that you first update your LiveCore™ device(s) with the latest firmware available (v4.02.39 or above).**

New features:
- None

Improvements:
- None

Bug fixes:
- When several screens made of outputs from synchronized units are used in a single scene, a flash might be displayed on the Program at the end of a Take Cut transition.
- When several devices are used in multiple scenes, a flash might be displayed on the Program at the end of a transition.
- When using a synchronized assembly, it is not possible to select Program / Preview #3 to #8 in a monitoring / confidence widget.

Products	VRC300
Date	November 13th, 2017
Version	5.00.12

The version (s) indicated here above has (have) been tested and validated by the Technical Support Department.

Technical Notes:

▶ **Important:**

- **Iterations created with firmware v4.00.10 (or earlier versions) are NOT COMPATIBLE with this new firmware.**

- **It is highly recommended that you first update your LiveCore™ device(s) with the latest firmware available (v4.02.39 or above).**

New features:
- None

Improvements:
- None

Bug fixes:
- When all matrix links are used on Program, switching to a new matrix stream by taking the Preview will not work (PIP missing)
- In the Assembly Editor, In & Out / Monitoring menu, the timing filter is not working on a newly created Assembly
- In the Assembly Editor, In & Out / Monitoring menu, the status "no signal detected" is displayed when using the default configuration

Products	VRC300
Date	October4, 2017
Version	5.00.11

The version (s) indicated here above has (have) been tested and validated by the Technical Support Department.

Technical Notes:

▶ **Important:**

- **Iterations created with firmware v4.00.10 (or earlier versions) are NOT COMPATIBLE with this new firmware.**

- **It is highly recommended that you first update your LiveCore™ device(s) with the latest firmware available (v4.02.39 or above).**

New features:
- Ability to use several screens in a Scene in order to get more PIPs from heterogenous devices (Large Scale System)

Improvements:
- Increase the quantity of log files for troubleshooting
- The default signal type of a Matrix Stream is set to Digital Auto instead of Digital RGB 0-255
- Increase the quantity of preset memories (100 to 200) and sources (120 to 240)
- In the Network page, the MAC address of each adapter is visible
- Ability to tweak the opacity of layers and their border per step of 1% instead of 10%
- Ability to tweak the layer zoom factor and position with a better precision
- Ability to query which source is displayed in a layer via TPP
- Ability to save preview or program in a preset memory via TPP
- Ability to load via TPP a preset memory as a layout/template only (without any source information)
- Ability to query via TPP which preset has been loaded last on Preview or Program
- Ability for the Vertige to answer to a real ping request

Bug fixes:
- In the Assembly Editor, the Preconfig / Rate menu, x3 multiplier should not be available in follow and framelock modes
- Sometimes, when loading an iteration then a preset using Matrix Streams then unloading the iteration quickly, the application crashes
- In several menus, entering an IP address containing leading zeroes in some fields can make the application crash.

Products	VRC300
Date	April 5, 2017
Version	4.00.10

The version (s) indicated here above has (have) been tested and validated by the Technical Support Department.

Technical Notes:

▶ **Important:**

- **Iterations created with firmware v3.04.00 (or earlier versions) are NOT COMPATIBLE with this new firmware.**

- **It is highly recommended that you first update your LiveCore™ device(s) with the latest firmware available (v4.02.23 or above).**

Bug fixes:
- Sometimes, in the Screen Editor Native menu, the screen selection is not working anymore and leaves the user interface in a state
- In the Preset Viewer, if the Screen uses the Custom Canvas mode, the Native Layer is not displayed with the correct opacity
- For non-4K LiveCore devices, UHDTV 2160p and Cinema 4K output resolutions should be available when the rate is in the range 23.97Hz - 30Hz (Dual-Link signal)
- Sometimes, a configuration error is displayed indicating that a Dual-Link resolution is not supported by a 4K 4:4:4 Output.
- In the Screen Editor, Area / Layout menu, it should always be possible to disable the rotation
- In the Screen Editor, Area / Layout menu, the AOI is limited to 200px by the slider but not via the text field

Products	VRC300
Date	March 31, 2017
Version	4.00.08

The version (s) indicated here above has (have) been tested and validated by the Technical Support Department.

Technical Notes:

▶ Important:

- **Iterations created with firmware v3.04.00 (or earlier versions) are NOT COMPATIBLE with this new firmware.**

- **It is highly recommended that you first update your LiveCore™ device(s) with the latest firmware available (v4.02.23 or above).**

New features:

- Vertige™ now allows to create/configure/use a Screen in **Custom Canvas** mode and set the **Area Of Interest** for each video output.

Creating a new screen

In the Screen page, select the **CREATE** option in the left menu and under the **Mode** section (right-hand side), select:

- − **Grid**: To build a Soft-Edge Blending (or Hard-Edge) configuration. Then adjust the horizontal and vertical grid sizes. The total number of screen areas will be given by the product of these two parameters.
- − **Custom Canvas**: To freely combine outputs into a specific screen pixel space and configure AOI for each output individually (eg. Hard-Edge / LED walls). Then adjust the canvas size and the quantity of areas (one area per output).

You can alternatively use the Assembly **Wizard** to easily create a new LiveCore™ assembly as well as the screens that will be controlled by this assembly (custom canvas mode or grid mode supported).

Configuring the screen areas

In the Screen page, select the **AREA / LAYOUT** option in the left menu, and then select the screen (or Confidence screen) for which you want to edit the screen areas.

- − In **Grid** mode, select an Area and then configure the Format settings. Note that all areas will share the same Timing and Rotation settings.

Important: AOI and Position settings are not available with the **Grid** mode. If your configuration needs to configure the AOI for each output, then the screen must be configured using the **Custom Canvas** mode.

– In **Custom Canvas** mode, select an Area and then configure:

- **Position**: Position the area in the screen.

- **Format**: Choose the output format for the selected screen area. Available selection filters include **Internal** (internal rate), **Standard** (requires Rate selection) or **Custom** (created via the Custom Format capability of the LiveCore™ device.
Note that the Vertige™ only allows the use of custom formats and will simulate them when not connected to the LiveCore™ device. A warning will be displayed if, when connected, the custom formats used by the Vertige™ do not match the custom formats defined in the device). You can further filter by Video or Computer formats. Select the format under **Timing**. If required, rotate the format by +-90°.

- **AOI**: Define the active area of your display in the output format (especially useful to remove unseen or useless displayed areas and operate exclusively on the actually displayed output area).

Configuring the output screen mapping

In the Screen page, select the **AREA / MAP** option in the left menu and then select the screen or the Confidence screen for which you want to edit the output screen mapping.
To map an output to a specific screen area, select the area and then the target (Program or Preview). Select the assembly containing the device that will process this screen then select the desired physical output. Note that Vertige™ automatically proposes an output amongst the remaining available resources in the selected assembly. When ready, press the **Apply** button.

Improvements:

- Vertige™ now allows the use of custom formats created via the Custom Format capability of LiveCore™ device. In the left menu, select the **PRECONFIG / CUSTOM** option then select the assembly providing the custom formats you want to use. Specify the custom format name, rate and resolution and then select Apply. If working offline, Vertige will simply simulate the custom format. A warning will be displayed if, when connected, the custom formats used by the Vertige™ do not match the custom formats defined in the device

- The **NATIVE** option has been moved from the **Assembly / STREAM** menu to the Screen menu

- Improvement of the ModuloPi descriptor

- Ability to control the AJA Kumo router (matrix descriptor)

Products	VRC300
Date	January 3, 2017
Version	3.04.00

The version (s) indicated here above has (have) been tested and validated by the Technical Support Department.

Technical Notes:

Improvements:

- Added support for new LiveCore ASC3204-4K-PL and LOE032-4K-PL

Products	VRC300
Date	November 9, 2016
Version	3.03.01

The version (s) indicated here above has (have) been tested and validated by the Technical Support Department.

Technical Notes:

▶ **Important:**

- **You might not be able to load an iteration created with a previous firmware (if at least one Screen is using a display rotation of 0°).**

- **It is highly recommended that you first update your LiveCore™ device(s) with the latest firmware available (v4.01.51 or above).**

Improvements:

- Compatibility with LiveCore v4.01.51:
    - 8 new EDIDs added
    - Updated display rotation values (None / 90° / 180° / 270° / **360°**)
    - Restricted display rotation to Single Link outputs only
- Added the ability to control Analog Way Prima Series (external device descriptor)
- Added the ability to control VLC (external device descriptor)
- In the TPP, the sequence status is now more detailed

Bug fixes:

- The External descriptor made for the D3 server doesn't work

In the Settings, TPP Server page, the description of the Edit menu is missing

Products	VRC300
Date	September 19th, 2016
Version	3.02.05

The version(s) indicated here above has (have) been tested and validated by the Technical Support Department.

▶ Version 3.02.05 – Technical notes

▶ Important:

- **Iterations created with firmware v3.01.00 or above are compatible with this new firmware.**

- **It is highly recommended that you first update your LiveCore™ device(s) with the latest firmware available (v4.00.58 or above).**

New features

- Added the ability to trigger internal actions via Macros.
- Added the ability to control the Vertige from an external controller (TPP).

Improvements

- Added the ability to control external devices using OSC protocol (limited).
- Added the ability to know the status of the power supply units :
    - if there is a power loss on one of them,
    - Send a warning after boot when only one single PSU is detected,
    - Send information when a PSU is powered up.
- In the Preset Viewer, the page should be reset when reloading an iteration (hide menu & reset hide layer option).

Bug Fixes

- It is not possible to use (Save & Load) presets 10 to 99 of a Panasonic PTZ.
- When mapping an Output of an Assembly using an internal rate < 50Hz on a 1920x2160 or 2048x2160 Screen, the application crashes.
- In the Screen Editor, menu Blending Curve, a curve should be selected by default.
- In the Preset Viewer, Preset Save menu, the description field should be disabled when no slot is selected.
- Sometimes the Vertige does not manage to route a MatrixStream which should be routable (e.g. after reloading same iteration).

Products	VRC300
Date	July 5th, 2016
Version	3.01.00

The version(s) indicated here above has (have) been tested and validated by the Technical Support Department.

▶ Version 3.01.00 – Technical notes

▶ Important:

- **Iterations created with firmware v3.00.03 are compatible with this new firmware**

- **It is highly recommended that you first update your LiveCore™ device(s) with the latest firmware available (v4.00.58 or above)**

Improvements

- Added the ability to control the Wings media servers from AV Stumpfl (external device descriptor)
- Added the ability to control the AJA Ki Pro media player (external device descriptor)
- Added the ability to control the PictureAll media servers and media players (external device descriptor)

Bug Fixes

- Sometimes a matrix stream has a status "Stream not being processed" while the content of the layer is correct (and vice versa)
- Sometimes a matrix stream is not routed correctly on Preview (and a plug conflict warning is displayed)
- In the Preset Editor, the status of a layer displaying a matrix stream not routed is either not visible or incorrect

Products	VRC300
Date	April 27th, 2016
Version	3.00.03

The version(s) indicated here above has (have) been tested and validated by the Technical Support Department.

## ▶ Version 3.00.03 – Technical notes

▶ Important:

- **Units manufactured prior to serial number DI00245 require some of the front panel keys to be changed using the kit #0001076. Please contact Analog Way support for more information**

- **Some features of this new firmware require LiveCore™ firmware version 4.00.54 or higher**

- **Iterations created with firmware v2.03.01 or older are incompatible with this new firmware**

New Features

- **External IP devices Control**: Vertige™ can now control several external devices over IP (media players, PTZ cameras …). Nearly any device listening to requests over TCP, UDP or HTTP could be controlled. Vertige™ provides a set of descriptors used to control some A/V devices. A device's descriptor is a small file describing the supported actions and its external communication protocol. If your device is not listed in this default set, please contact Analog Way Technical Support: based on your device reference and its user manual, we might be able to generate a descriptor that you could then import into your Vertige™. Alternatively, if you know the external control protocol of your device, you can use the **Raw Device** descriptor to send commands formatted manually.

    To display the **External Device Library** page, press the Vertige™ **SETTINGS** button in the upper-right corner then select the **Ext. Dev. Library** tab. The upper area displays all the descriptors currently available in your Vertige™:
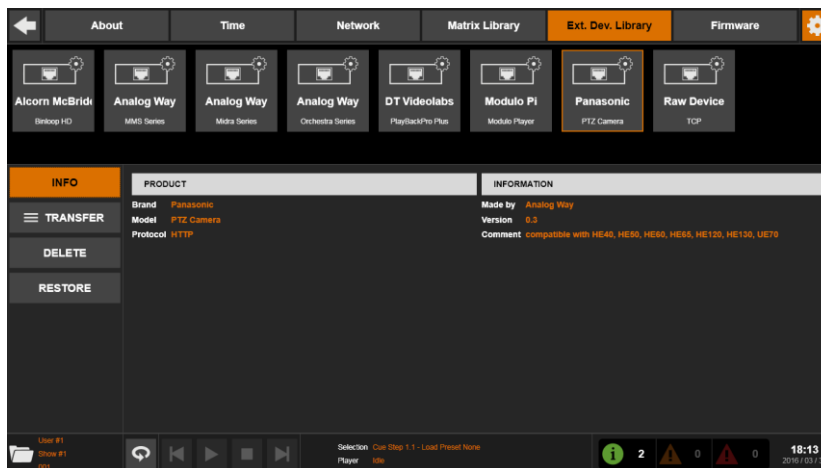
    You can then use the left menu options to display some external device descriptor information, import a descriptor from a USB key or export an existing descriptor to a USB key.
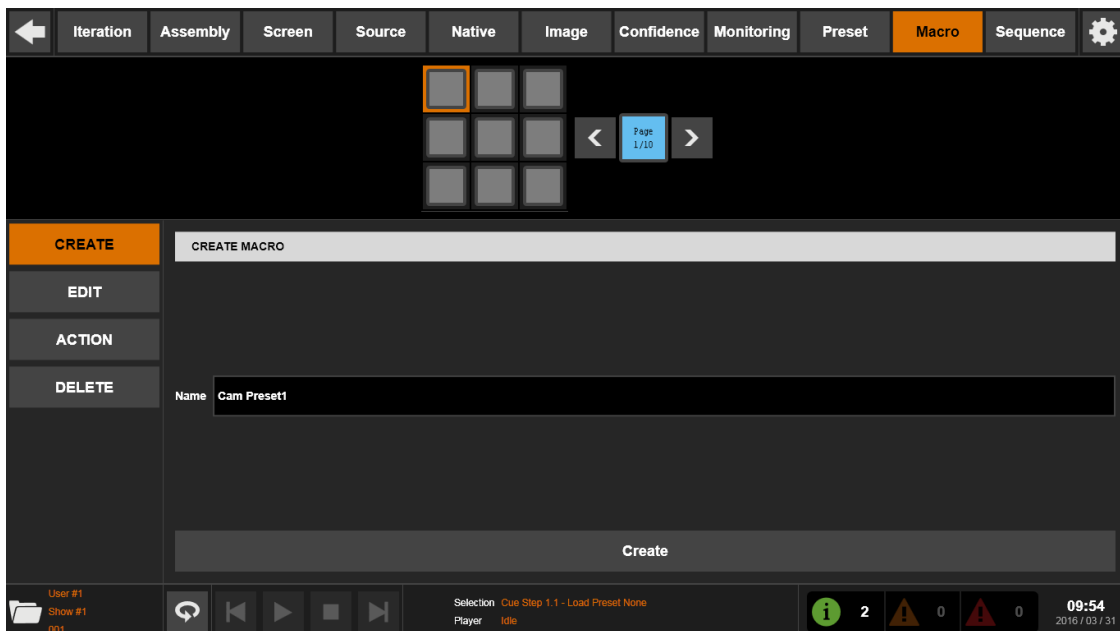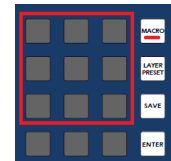
Adding external IP devices to your iteration: in the **Iteration** page, select the **EXT. DEVICE / CREATE** option then enter the name of the external device. In the **Descriptor** field, select the external device descriptor from the library corresponding to the device you want to create. Edit the IP address field and press the **Create** button:
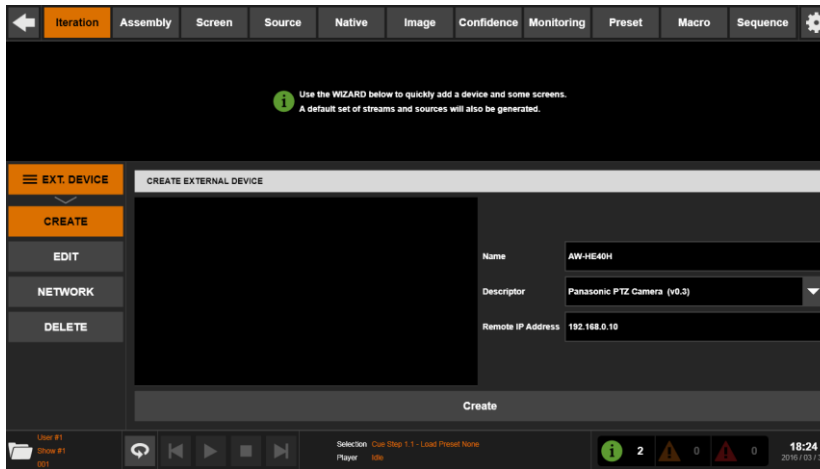

Controlling external IP devices: The control of external IP devices relies on **macros** (for further details about macros, please read the description below).

- **Macros**: Vertige™ now supports macros. A macro consists of several actions that will be executed sequentially to control external IP devices. Most actions require one or more parameters.

Creating a macro: In the **Macro** page, select the **CREATE** option then enter the name of the macro. Please choose a name as short and explicit as possible as it will be displayed on LCD keys of the Vertige™ front panel (**Edit** section). Bind this macro to a LCD key (10 pages of 9 keys available) in the front panel. When ready, press the **Create** button.

Adding actions to a macro: In the **Macro** page, select the macro you want to add actions to. Select the External Device action type then select an external IP device (previously added to the iteration). When ready, select the action you want to add to the macro. Configure the related parameters accordingly then press the **Add** button:
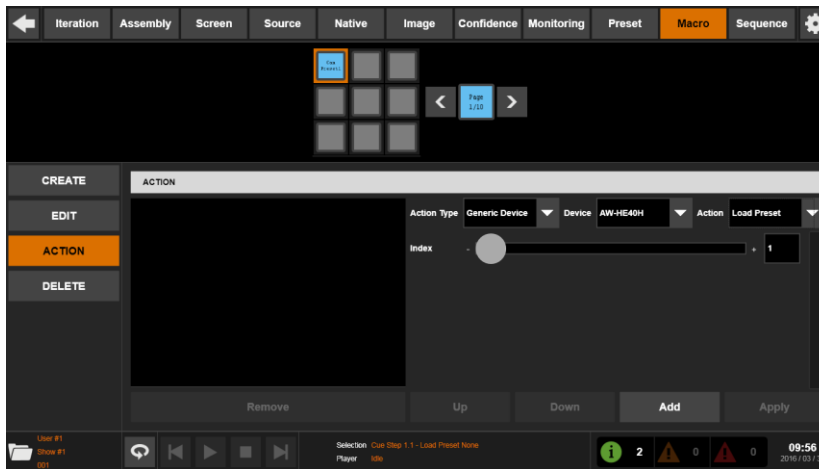

Repeat this step as many times as necessary. Note that all the actions will be executed sequentially without any delay between them. If you need to pause the macro between two actions then simply add a **Delay** and configure the duration accordingly (in milliseconds).

Running a macro: A macro can be triggered either manually thanks to the user keys on the front panel or automatically using the sequencer.

- **Layer Presets**: Vertige™ can now store some layer attributes (position, size, border, transparency, etc...) into layer preset memories that can be applied later to a selection of layers (i.e. layer attributes copy/paste).

Saving a layer to layer preset: Select the layer whose attributes will be saved. If more than one layer is selected, only the first layer of the selection will be saved. Press the **LAYER PRESET** button on the front panel (**Edit** section) then press the **SAVE** button. Use the keys located at the bottom of the **Edit** section (POS, SIZE, IN…) to filter which attributes to save from the layer. When ready, press once one of the 12 LCD keys to save into the corresponding layer preset memory (12 presets available). If you attempt to overwrite an existing preset, you will have to confirm the operation by pressing on the blinking memory button a second time. Each LCD key displays a grid layout reflecting the types of filter saved into the corresponding memory.
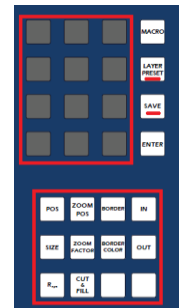

Applying a layer preset to a selection of layers: Select the layer(s) for which you want to apply a layer preset memory. Press the **LAYER PRESET** button on the front panel then simply press one of the yellow LCD key (filled memory).

Evolutions

- **Advanced Layer Management**: Vertige™ now allows allocating output(s) layer resources to another output in order to have more layers. Resources can only be assigned in blocks with a fixed number of layers. For example, an Ascender 48 normally has 6 layers on each output. You can move the resources from output #2 to output #1 and allow output #1 to display 12 layers. In this case, output #2 is disabled as it doesn't longer have any resource available.

Defining the number of layers: When creating or editing a screen, select the layer quantity required:
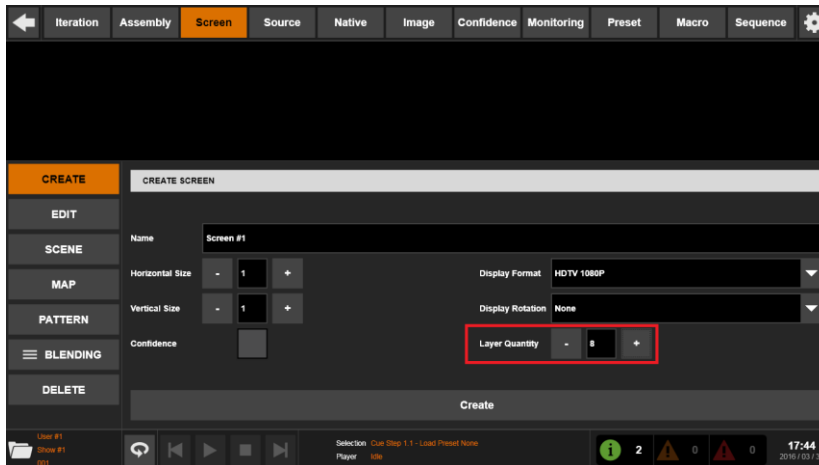

When ready, press the **Create** (or **Apply**) button.

Configuring output screen mapping: Map the corresponding physical output(s) to the different areas of this screen. If Vertige™ detects that there is not enough layer resources available on an output(s), a warning will be displayed:
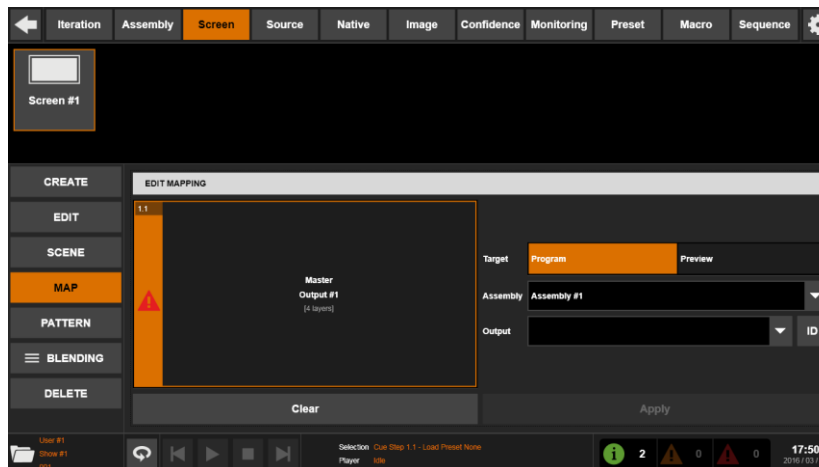
In this case, you need to go to the **Assembly** page and select the **PRECONFIG / OUTPUT** menu. Use left or right arrows to move layer resources from an output to another one until the corresponding outputs have enough resources:
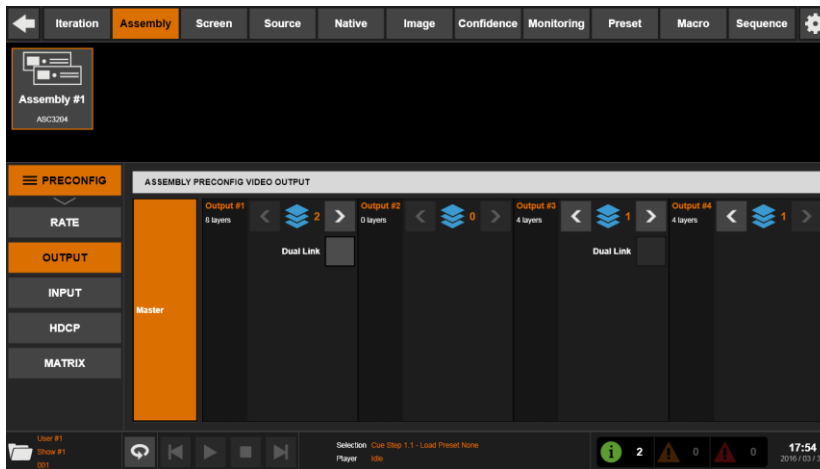

- **Layer Cut and Fill**: The Cut & Fill feature allows keying the content of a layer using an input or a still picture (frame or logo) as the alpha channel. Usually, the Cut content (the mask) is a grey level content: the darker the grey level, the more transparent the Fill content. If a colored content is used as Cut content, the Luma level of the Cut content is used to key the Fill content. Please note that since the Cut & Fill feature requires 2 layers (one for the Cut and one for the Fill), only layers 1, 3, 5 … can be used for the Cut & Fill feature.

Using the Cut&Fill effect: Select a layer (1, 3, 5…), press the **Cut & Fill** button on the front panel (Edit section) and then press the **Activate** button (the adjacent layer becomes unavailable). To select the source for the Cut, press the **Cut Source** button then navigate to the desired source and simply press the corresponding LCD key.

A small area appears in the top right corner of the layer in the preset viewer, indicating that Cut & Fill has been activated on the layer (with the snapshot of the Cut source, if any). You can edit the other parameters like invert, freeze, luma level thresholds … using the shortcuts and the encoders on the front panel. Since the Cut & Fill feature belongs to the layer parameters that are included in the preset memory, these settings can be different from one preset to the other. For example, using a static frame as Cut content and playing with the thresholds will allow you to create dynamic transition effects.

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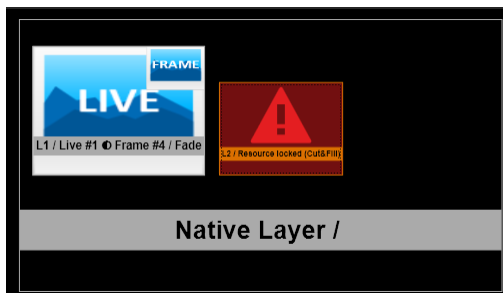
- **Dual-Link inputs**: Vertige™ now supports the Dual-Link mode for DVI and DisplayPort and HDMI 4K input plugs: To activate this mode, select the **Assembly** page then select the assembly for which you want to configure the device(s). In the left menu, select the **PRECONFIG / INPUT** option then check the **Dual-Link** box for the desired DVI/DisplayPort/HDMI 4K input plug(s):
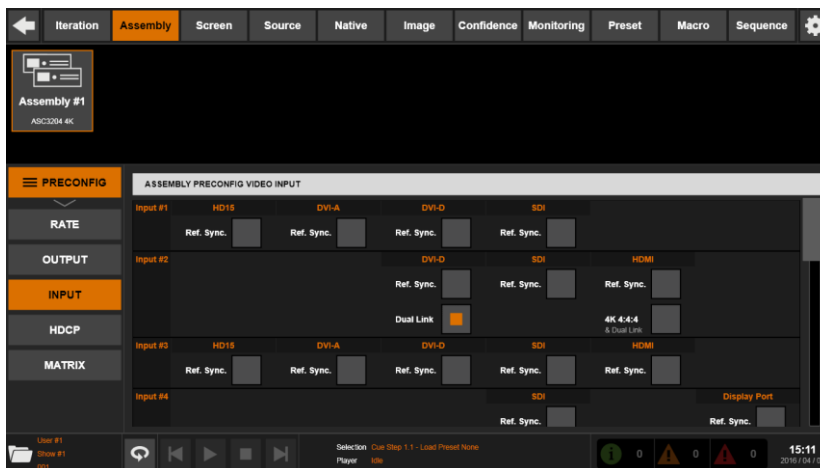
When the Dual-Link mode of an input plug is active and used in a preset (Program or Preview), the adjacent input is disabled. It automatically disables the input #1 (linked to input #2), input #5 (linked to input #6) and input #9 (linked to input #10) as the device needs these inputs to handle the Dual-Link input (in case of DVI). The same thing will happen with inputs #4, #8 & #12 (DisplayPort): Enabling the Dual-Link on these inputs disables the inputs #3, #7 or #11. If the Dual-Link input plug is not used in a preset anymore and the adjacent input needs to be displayed, Vertige automatically switches the input plug from the Dual-Link plug to the SDI plug. If you try to display simultaneously the Dual-Link input plug and the adjacent input, the preset editor displays a warning in the layer containing the adjacent input.

- **4K inputs**: Vertige™ now supports HDMI 4K inputs for LiveCore™ devices equipped with the 4K option. In order to use a 4K resolution, select the **Assembly** page then select the assembly for which you want to configure the device(s). In the left menu, select the **PRECONFIG / INPUT** option then check the **4K 4:4:4** box (available for input #2, #6 and #10):
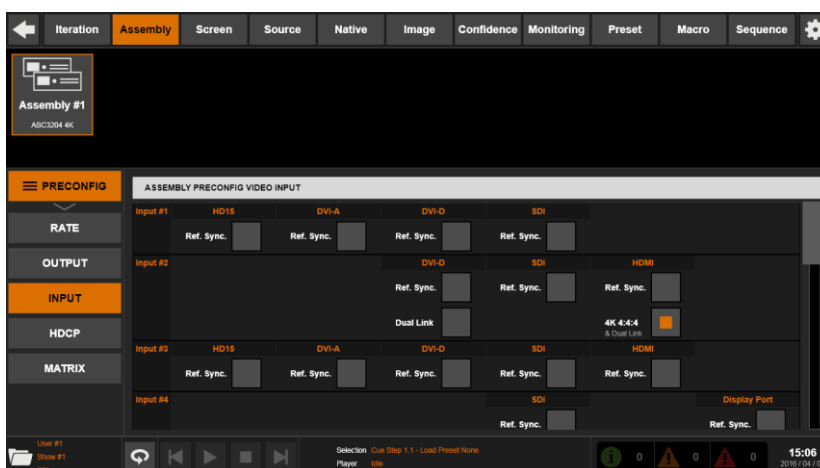
When the 4K mode is activated for an input plug and used in a preset (Program or Preview), it automatically disables the adjacent input: input #1 linked to input #2, input #5 linked to input #6 and input #9 linked to input

#10. If the 4K input plug is not used in a preset anymore and the adjacent input needs to be displayed, Vertige automatically switches the input plug from the 4K plug to the SDI plug. If you try to display simultaneously the 4K input plug and the adjacent input, the preset editor displays a warning in the layer containing the adjacent input.

- **Ref. Sync.**: Vertige™ now supports the Ref. Sync. for each input plug. If you use framelocked/genlocked inputs, select the **Assembly** page then select the assembly for which you want to configure the Ref.Sync. In the left menu, select the **PRECONFIG / INPUT** option then check the **Ref. Sync.** box for every framelocked/genlocked input plugs that share the same reference:
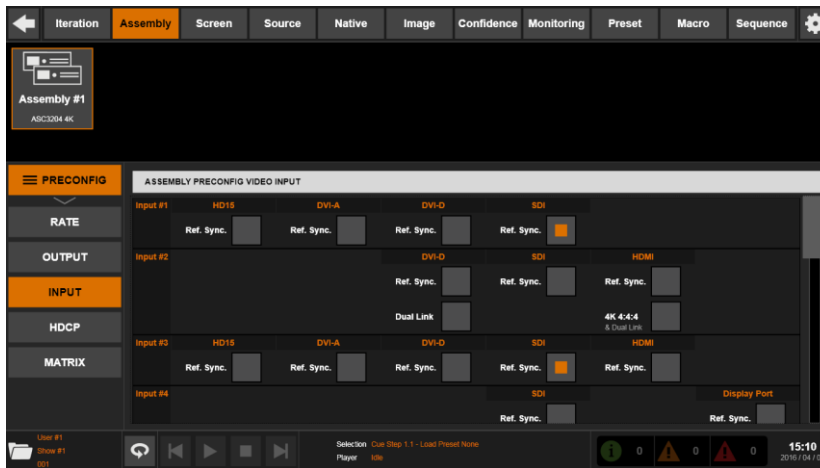
That will reduce the frame delay by disabling the Frame Rate Conversion, using the rate of the reference input as the default rate.

- **Ability to support 8 frames/logos on linked devices**: Vertige™ now supports up to 8 frames and 8 logos on linked LiveCore™ devices.

- **New border styles**: Vertige™ supports new LiveCore™ border styles (shadow smooth and rounded corner).

- **UDP protocol**: Vertige™ now supports the UDP protocol to connect to an upstream matrix router or an external IP device.

- In the **Assembly** Editor, **Native Stream** menu, the stream list can now be filtered by type (Live / Frame / Matrix).

- Dual-Link output formats are now available on outputs when the 4K 4:4:4 30Hz option is available.

- Ability for a user to export or copy an iteration that he does not own.

- Misc. UI improvements.

Bug fixes

- Wrong aspect ratios description on some output formats.

- In the **Wizard** menu, the **Confidence** option is lost when editing the screen quantity.

- Selection of layer per depth on the front panel should be filtered based on devices.