

ETC Supplement

Element v2.6.0 Supplement to Manual

Many functions and controls available on other Eos Family consoles were added to Element with version 2.6. This supplement will discuss those new features. In addition to this supplement, several updated chapters from the Element manual have been included.



Note: For additional features added to all of the Eos Family consoles in version 2.6, please see the Eos Family v2.6 Supplement, which can be found starting on page 48 of this document.

The following is a list of those new features and where you can learn more about them.

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New Setup Options for Element

There are four new options for Element in **Setup>Desk>Display**.

DirSel.Dbl Clk

When enabled, double clicking a direct select button will act as **[Recall From] [Record Target]** to place the entire contents of that preset, palette, or step-based effect on stage. The default for this setting is "Disabled".

Display Fader Ribbon

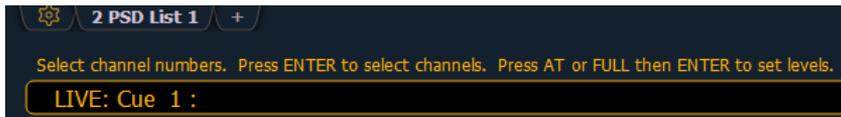
When enabled, the fader ribbon will display. The fader ribbon shows the state of Element's faders. When disabled, the fader ribbon will not display. **{Display Fader Ribbon}** is enabled by default.



Display Help Prompts

When enabled, Element displays help prompts above the command line. When disabled, the prompts will not display. **{Display Help Prompts}** is enabled by default.





User Id

This option is available in **Setup>Desk>Display**.

You can change the User ID for the console by selecting this button and entering a number from the keypad. For more information on User ID, see [Multiple Users on page 25](#).

Update Mode

This option is available in **Setup>Desk>Record Defaults**.

This field allows you to select a default update mode. The default is "Make Absolute". For more information, see [\[Update\] on page 7](#).

{Home Preset}

This option is available in **Setup>Show>Show Settings**.

Allows you to specify a preset that will be used as the home level for all non-intensity parameters in the preset, instead of the fixture library defaults. This preset will be applied for all "Go to Cue Out" and home commands. Intensity values in the preset will be ignored. Channels not included in the assigned home preset will continue to home to their library defaults.

Please see [Storing and Using Presets on page 13](#) for more information.

Partitions

Pressing the **{Partitions}** button in **Setup>Show** opens the partition display in the CIA. This display shows any recorded partitions, including the four pre-existing partitions. For more information, see the Using Partitions chapter in this supplement.

Manual Control

Changes in this section impact the Basic Manual Control or the Advanced Manual Control chapter.

Highlight and Lowlight

Element can be placed in Highlight mode. Channels selected while in this mode will either go to a default setting, or to a value provided by a highlight preset (established in **Setup>Desk>Manual Control**). Modifications can then be made to those channels. Any changes will be maintained when the highlight mode is removed.

To place Element in highlight mode, press **{Highlight} [Enter]**. The command line will show that highlight is currently in use.

If no highlight preset is established, or for channels that have no value stored in the highlight preset, the following values will be applied to channels as they are selected:

- » Intensity - full
- » Focus parameters - no change from present state
- » Color parameters - home value
- » Shutter parameters - no change from present state
- » Image parameters - home value
- » Form parameters - no change from present state

For Example:

1. **[Group] [1] {Highlight} [Enter]** - places channels 1 through 5 in highlight.
2. **[Next]** - specifies channel 1.
 - » 1 is in the highlight value.
 - » 2 - 5 are in the lowlight value.
 - » All other channels go to the defined rem dim level.

You may assign both a highlight and a lowlight preset in setup. Any preset may be used. Channels/parameters that are not included in the presets assigned to Highlight and Lowlight will continue to use their default highlight values.

On a command line with a channel selection, you can use **[Shift] + {Highlight}** to go into Highlight mode and send the selected channels to the default Highlight setting. This command will self terminate the command line.

If you just use **{Highlight}**, the command line will be cleared.

Using {Make Manual}

The **{Make Manual}** softkey can be used to convert cue or submaster data into manual values, allowing it to be included in **[Record]**, **[Record Only]**, and **[Update]** operations.

- » **[5] {Make Manual} [Enter]** - selects channel 5 and makes all of its current parameter settings manual data.
- » **[8] {Focus} {Make Manual} [Enter]** - selects channel 5 and makes all of its focus data manual.
- » **[9] [Thru] [3] {Color} {Intensity} {Make Manual} [Enter]** - selects channels 3-9 and makes their color and intensity values manual.

Using {Make Null}

The **{Make Null}** softkey can be used to withhold parameter data from record or update actions in live, and remove parameter data from record targets in blind. **{Make Null}** is applied using channel selection and can impact entire channels, individual parameters, or parameter categories.

Make Null In Live

When you apply a **{Make Null}** instruction to channels or parameters in live, channel data is still visible onstage, but that data is essentially rendered invisible to record commands. Similar to filters (see [Record Filters on page 31](#)), **{Make Null}** acts as an "ignore" instruction in live, not a remove instruction. When channel data is nulled, the values for that data in the live display turn grey and an "N" appears next to the data field.

{Make Null} differs from park in that you can still manipulate data onstage (through manual control or through playback) but that data will be unavailable for record actions.

Some examples of using **{Make Null}** in live are:

- » **[1] [Thru] [5] {Make Null} [Enter]** - converts all parameters of channels 1-5 into null data.
- » **[2] {Color} {Make Null} [Enter]** - changes only color data for channel 2 to null data.
- » **[9] [Thru] [5] {Pan} {Make Null} [Enter]** - changes only the pan data for channels 5-9 to null.

Null instructions are lifted in two different ways. First, as **{Make Null}** is a toggle state, it is possible to reselect the channel and parameter followed by **{Make Null} [Enter]**. This lifts the null state.

Additionally, a Go To Cue instruction will remove the null state.

Make Null In Blind

When applied in blind, **{Make Null}** can be used to mask instructions in a cue **after** it has already been stored. A **{Make Null}** instruction can also be applied to channels/parameters in palettes, presets, and submasters,

thereby removing the data from the target entirely, in the same way that **[At] [Enter]** does.

When applied to channels/parameters in cues, **{Make Null}** doesn't remove the data from the cue, it simply makes it unavailable for playback. It has the same effect on move instructions that it has on tracked values.

Some examples of using **{Make Null}** in blind are:

- » **{Color Palette} [1] [Enter] [3] {Magenta} {Make Null} [Enter]** - removes all magenta parameter data for channel 3 from color palette 1.
- » **[Preset] [5] [Thru] [9] [Enter] {Intensity} {Make Null} [Enter]** - removes all intensity data for all channels in presets 5-9. (Use **[Shift] + [Int Palette]** to put Preset on the command line.)
- » **[Cue] [8] [Enter] [2] [Thru] [7] {Make Null} [Enter]** - nulls all data for channels 2-7 in cue 8.
- » **[Cue] [9] [Enter] {Intensity} {Make Null} [Enter]** - nulls all intensity data for all channels in cue 9.

In the cue scenarios above, **{Make Null}** differs from using **[At] [Enter]** in that instead of allowing values established in previous cues to track in, **{Make Null}** both restricts the recorded data from playing back and prevents other values from tracking in. Therefore, if the cue were executed as an out-of-sequence cue, no data would play back or track in for any nulled values.

Using {Query}

{Query} is used to select channels that meet criteria specified by you. These selections are conditional, based on what type of luminaire a channel is or what that channel is doing, isn't doing, can do or cannot do. These criteria are established in the command line using the softkeys, the keypad, and the direct selects.



Note: On Element, **{Query}** is a softkey. To access **{Query}**, the command line has to be clear.

When **{Query}** is used, the softkeys change to:

- » Is In
- » Isn't In
- » Can Be
- » Can't Be
- » Or
- » Moves Only
- » Unpatched
- » Less Than (includes equal to)
- » Greater Than (includes equal to)



Note: Unless otherwise specified, Element assumes that a query will apply to current output. Therefore use of the **{Is In}** softkey is optional.

The CIA also repaints to display all of the available softkeys and additional query states by which you can search. These can be used in defining your query criteria.

- » **{Default}** - includes the query softkeys along with additional query conditions.
- » **{Text}**
 - » **{Keywords}** - displays buttons for all the text used in the text 1-10 fields and for all of the default keywords in Patch.
 - » **{Gel}** - displays all of the gels used in the current show file.
 - » **{Text 1} - {Text 10}** - displays only the text used in that text field.
- » **{Fixture Types}** - displays buttons for all of the fixture types used in the current show file.

As a query is defined in the command line, channels will be specified in the live/blind display. When an **[Enter]** command is used to end the query, the remaining channels of the query will be selected.

For Example:

You wish to find channels which are in color palette 2 and have an intensity of 50%:

» **{Query} <Is In> {Color Palette} [2] [At] [5] [0] [Enter]**

In the live/blind display, any channels meeting this criteria will be selected.

You may use **[Next]** and **[Last]** to cycle through the query selection, one channel at a time to control only a specific channel.

Other examples of using a query are:

- » **{Query} {Isn't In} {Beam Palette} [2] [5] [Enter]**
- » **{Query} {Luminaire} {Can Be} {Focus Palette} [8] [Enter]**
- » **{Query} {Unpatched} [Delete] [Enter] [Enter]**
- » **{Query} {Fixture Type} {Revolution} {Can Be} {Focus Palette} [6] {Isn't In} [Cue] [4] [Thru] [9] [Enter]**
 - » **[Next] [Next] [Enter]** - selects one channel from the query result

Additionally, in patch you can define up to ten “query” keywords for each channel. These keywords can be used to create a query condition as well.

Keywords defined in patch will appear in the CIA when **{Query}** is pressed. They can then be used in a query like this:

» **{Query} {Your keyword} {Can't Be} {Beam Palette 5} [Enter]**

Buttons on the facepanel, such as **[Time]** can also be used to construct a query.

Working with The Cue List

Changes in this section impact the Working with the Cue List chapter.

Non-intensity Parameter Category Cue Timing

Timing can be applied for Focus, Color and Beam parameter categories at a cue level. By default, FCB timing is the same as intensity upfade time. Once FCB timing is different than intensity upfade time, those times are no longer affected by intensity upfade changes.

When you apply a time to an individual parameter category and that category has no movement, the time is displayed in gray. The specified timing will remain in gray until that category is provided with a move instruction, at which point it the timing will display in white.

- » **[Record] <Cue> [2] {Color} [Time] [7] [Enter]** - records cue 2 with a cue level color time of 7.
- » **[Record] <Cue> [2] {Color} [Time] [Enter]** - resets the color time of cue 2 back to the default value.
- » **[Record] <Cue> [2] [Time] [Time] [Time] [7] [Enter]** - records cue 2 with a cue level focus time of 7. In this example, each press of the **[Time]** key steps through each timing value (up time, down time, focus time, color time and beam time).
- » **[Record] <Cue> [2] [Time] [7] [Enter]** - records cue 2 and puts a time of 7 on all parameter categories (if F, C, B all had the same times to begin with).



Note: It is not necessary to rerecord a cue to alter stored timing data. You can simply redefine the time by specifying the cue and re-entering the time value(s).

- » **[Cue] [5] [Time] [8] [Enter]** -redefines the all category times to 8 seconds (If FCB all had the same timing).
- » **[Cue] [2] {Color} [Time] [5] [Enter]** - redefines color time to 5 seconds.
- » **[Cue] [3] {Focus} [Time] [-] [2] [Enter]** - removes 2 seconds from the current time.
- » **[Cue] [7] {Beam} [Time] [+] [3] [Enter]** - adds 3 seconds to the current time.

Discrete Channel/Parameter Timing

Rather than using cue times, timing can be applied directly at a parameter or channel level. This is referred to as discrete time.

Discrete timing can be applied to a specific channel or parameter. You must select the channels that you want to apply the time to, otherwise the system assumes you are addressing the selected cue.

Following are some examples of use:

- » **[channel list] {Color} [Time] [3] [Enter]** - adds a time of 3 seconds to all of the color parameters of the channel list that have a move instruction.
- » **{Focus} [Time] [7] [Enter]** - assigns a time of 7 seconds for the focus attribute of all selected channels.
- » **{Select Manual} {Beam} [Time] [7] [Enter]** - selects channels with manual data and applies a time of 7 to any manual beam values.

Discrete delay times can also be placed on a channel parameter.

- » **[1] {Color} [Time] [4] [Delay] [3] [Enter]** - places a time of 4 seconds and a delay of 3 seconds on all color parameters of channel 1.

The **[+]** and **[-]** hardkeys can be used to increase or decrease discrete timing values.

- » **[channel list] [Time] [+] [3] [Enter]** - increases the discrete timing values by 3 seconds.
- » **[channel list] [Delay] [-] [1] [Enter]** - decreases the discrete delay value by 1 second.

When timing has been applied to a channel parameter in live, a small red "t" will be displayed with the channel. This indicates the timing must be stored or updated to the required cue. When this is done, the "t" is displayed in blue. In the Playback Status Display, a "+" is displayed in the associated parameter category time field, indicating that not all of the parameters in the cue will use the cue timing. The **[About] +[Time]** key can be held down to see the discrete delay/time information for channels in Live/Blind. Delay is displayed first, followed by the timing value. Pressing **[About] +[Time]Time** will latch the display to show discrete timing information.



Note: Reminder that any conditions places on channel/parameter in live (such as discrete timing) must be stored or updated to the cue.

Discrete Time as a Percentage

Discrete times can be entered as a percentage of the cue time.

- » **[channel list] [Time] [/] [5] [Enter]** sets the time for channel 2 to 50% of the cue time.
- » **[channel list] {Focus} [/] [7][5] [Enter]** - sets the focus category time to 75%.

Follow/Hang

A follow time creates an auto-follow which automatically activates the next cue in the sequence when the follow time of the associated cue has elapsed. The follow time begins counting from the moment the cue is executed.

The hang time is also an auto-follow, but rather than counting from the moment the cue is executed, it is calculated from the completion of the cue. You can assign a negative value to a hang time, allowing a subsequent cue to overlap an active cue.

You can assign either a follow time or a hang time, but not both. Both features are accessed using the **[Shift] & [Delay]** keys on the console or the softkey **{Fw/Hg}**. **[Shift] & [Delay]** or **{Fw/Hg}** will put Follow on the command line, and **[Shift] & [Delay] [Delay]** or double pressing **{Fw/Hg}** will put Hang.

Following are some examples of use:

- » **[Record] <Cue> [5] [Shift] & [Delay] [8] [Enter]** - records cue 5 and provides a “follow” time of 8 seconds which impacts the start of the next cue in the list. The following cue will automatically initiate on the same fader when the follow time has elapsed. The follow time will begin counting down when the associated cue (Cue 5) is executed.
- » **[Record] <Cue> [5] [Shift] & [Delay] [Delay] [8] [Enter]** - records cue 5 and provides a “hang” time of 8 seconds which impacts the start of the next cue in the cue list. The following cue will automatically initiate on the same fader when the hang time has elapsed. The hang time will begin counting down when the associated cue (Cue 5) is complete.
- » **[Record] <Cue> [5] [Shift] & [Delay] [Delay] [-] [5] [Enter]** - records cue 5 and provides a “hang” time of negative 5 seconds.

To remove a Follow/Hang time:

- » **[Cue] [x] [Shift] & [Delay] [Enter]**

[Update]

Update is a powerful feature, and also very versatile. Using a combination of **[Cue Only]**, **[Track]**, **[Trace]**, and **{Make Absolute}**, the number of ways you can update specific information and manual data is virtually endless. Data can be updated to various record targets either at once, or individually.

Update Dialogue Box

When you press **[Update]**, a dialogue box will open in the CIA. Update styles and modifiers for those styles will be divided in the Update Dialogue Box.



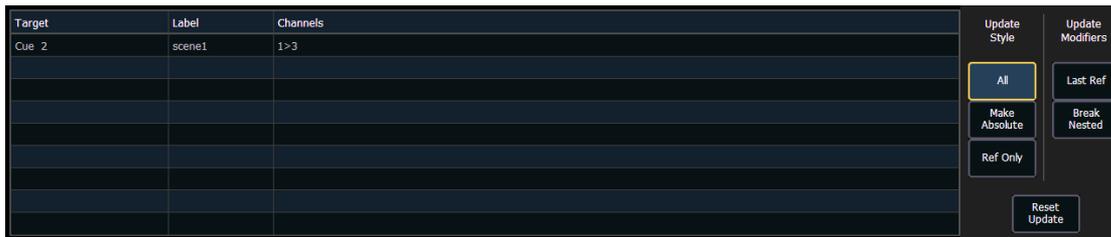
Note: Default Update Modes are set in **Setup>Desk>Record Defaults**. See [Update Mode on page 2](#) for more information.

Update Styles

- » **{All}** - this button will update the target cue and all references stored to that cue (nested and otherwise).
- » **{Make Absolute}** - this button will update the target cue and convert all levels to absolute values, thereby removing any references.
- » **{Ref Only}** - this button will only update the palettes or presets used in the cue, but will not update the cue itself. If a manual reference was used before using **{Ref Only}**, the last manual reference will be updated.

Update Modifiers

- » **{Last Ref}** - this button will update using the last reference that was applied.
- » **{Break Nested}** - this button will update the target cue and any presets used, but breaks the reference to any palettes nested in a preset. For example, if cue 1 channel 1 references preset 3, and preset 3 was built using color palette 5. When updated with this option, preset 3 would be updated, color palette 5 would not, and the reference to CP5 would be broken in preset 3.
- » **{Reset Update}** - this button will clear any commands after the **[Update]** command to quickly undo pending changes before **[Enter]** is pressed.



The dialogue box also provides you with a listing (by record target) of what channels/parameters will be impacted by the update instruction. If the channel contains a reference in the cue, it is indicated. If not, a “+” is displayed. Channels that have been manually added to the stage output, but are not overrides of an active cue will update to the selected cue list.

Once you have made a selection from the available options, press **[Enter]** and the target will be updated.

Targets may be deselected from the dialogue box, excluding them from the update without specifying the target number, for example, **[Update] {Color Palette} [Enter]**.

Updating to References

When a cue is active, it is possible that various record targets (palettes or presets) will be played back within that cue. As changes are made to the data in that cue, as well as to the individual palettes or presets, updating both the cue and references within that cue is simple. When you have overridden a reference in a cue, the data is displayed in red with a red “R” in superscript next to the channel’s intensity.

By default, Element updates any referenced data that was included in the cue.

For Example:

Cue 5 is recalled Live. It contains references to color palette 1 and preset 2. You make changes to channels included in these record targets. To update both the cue **and** the palettes/presets, press:

» **[Update] [Enter]**

This will automatically take the manual changes and update them to color palette 1 and preset 2. Therefore cue 5 now references these new values, and the modifications to CP1 and PR2 have propagated through all of the show data.

If you had made changes to other channels that were not included in the palettes/presets used in cue 5, those values would also be updated to the cue as absolute data.

Updating Without References (Make Absolute)

If you want to record your changes to the cue **without** updating the references, you may use **{Make Absolute}** to break the association to the reference. The **{Make Absolute}** command can be applied to the channels/parameters required before the update instruction, or they can be applied during the update.

- » **[Update] {Make Absolute} [Enter]** - this will break the references for any parameters which have been changed and update the cue with the changes. The referenced target will no longer be displayed in the channels which were made absolute. All of the data updated in cue 5 will now be shown as absolute data.
- » **[5] [Thru] [9] [Update] {Make Absolute} [Enter]** - this will break only the references for channels 5-9 and record their manual values to the cue. Other manual values will not be included in this update.

You may also use **[Record Only]** to break references.

For Example:

Cue 5 is active and onstage. Channels 5-20 are currently referencing preset 1. You make changes to channels 5-9. The data for these changes is now manual. Press:

» **[Record Only] [Enter] [Enter]**

If there were other changes on stage, you could have used:

» **[5] [Thru] [9] [Record Only] [Enter] [Enter]**

Only the manual data will be recorded as an update to cue 5. The reference to preset 1 for channels 5-9 is broken and now the cue will display the absolute data rather than the reference indicator.

Update Using Cue Only/Track

The **[Cue Only/Track]** key can be used as an applied exception to the cue only/track system setting. Therefore if the system is set to Cue Only, the key behaves as a **[Track]** command. Alternatively, if the system is set to Track, the key behaves as a **[Cue Only]** button.

[Cue Only/Track] can be used in conjunction with record or update functions. Following are some examples of use:



Note: In the following examples, the commands **[Cue Only]** and **[Track]** indicate the same key hit of **[Cue Only/Track]** - a single button on the keypad. The system setting determines the actual context of the button. For clarity, only the contextual function of the button is used in the examples.

With system set to "Track"

- » **[Record] <Cue> [5] [Cue Only] [Enter] [Enter]** - rerecords cue 5. This will make the changes to cue 5 **only**. The changes will not track forward through the list.
- » **[-] [Color] [Record] <Cue> [5] [Cue Only] [Enter] [Enter]** - as above, but changes to color parameters will not be included in the record and all data that was included will not track forward. Color data in the cue remains unchanged.
- » **[Update] <Cue> [5] [Cue Only] [Enter]** - updates cue 5 with only those manual parameters that were receiving their instructions from that cue. The changes will not track forward in the list. Note that if the data being updated were referenced, this action updates the referenced target as well.
- » **[-] [5] [Record] <Cue> [7] [Cue Only] [Enter] [Enter]** - rerecords the specified cue, except the contributions from channel 5. The changes will not track forward in the list.

With system set to "Cue Only"

- » **[Record] <Cue> [5] [Track] [Enter] [Enter]** - rerecords cue 5. This will force the changes to track forward in the list until the next move instruction or block.
- » **[-] [5] [Color] [Record] <Cue> [7] [Track] [Enter] [Enter]** - rerecords the specified cue, except the color data from channel 5. The recorded changes will track forward in the list.
- » **[Update] <Cue> [3] [Thru] [7] [Track] [Enter]** - updates cues 3 thru 7. Range updates are subject to the normal rules of track/cue only in determining impact on subsequent cues.

Using Trace

{Trace} works just as Track does, except it allows changes to be tracked backwards through the cue list, until it sees a move instruction. A trace will track into, but not beyond, a blocked instruction.

Following are some examples:

- » **[Update] <Cue> [5] {Trace} [Enter]** - updates cue 5, and tracks changes backward until a move instruction is encountered. If the system is in track mode, the change will track forward in the cue list until the next move instruction or block. If in cue only mode, this has no impact on subsequent cues.

- » **[Update] {Trace} [Cue Only/Track] [Enter]** - updates the selected cue and tracks changes backward until a move instruction is encountered. If the system is in track mode, the change is prohibited from tracking forward in the list. If in cue only mode, the change is allowed to track forward.

When a channel that is inactive (at zero or null) in the cue list receives an active level, if update trace is used, that channel will not trace the current setting into previous cues. To force that channel's new value to go backward in the cue list, **{Trace} {Trace}** can be entered.

Updating the Current Cue

The current cue is updated by simply pressing **[Update] [Enter]**.

Updating a Source Cue

To update the source of a level in the current cue (therefore, a move instruction in a prior cue) you must specify a trace for the desired channel(s).

- » **[5] [Update] {Trace} [Enter]** - Updates any manual changes for channel 5 in the current cue. Any tracked values for channel 5 are traced back to the source of the value (the original move instruction) and changed to the new value. The value for traced changes in the current cue will be magenta indicating it is a tracked value.
- » **{Trace} {Trace}** - If a channel was inactive in the cue (either because it had not previously been used in the cue list, or it was a tracked zero) and is set to a new level, by default the new level will not track back. You can force it by pressing **{Trace}** twice.

Updating a Non-Active Cue

It is possible to use the same update commands as current and source cues to update inactive cues (cues not live onstage). In these situations, if the updated cue is not the source of a channel's live value, manual data will remain manual. If the updated cue **is** the source of the current value, the values will change to magenta (indicating tracked) when the update is completed.

Update [Thru]

Using **[Update] [Thru]** allows you to update from a current cue to a destination cue without first entering the current cue's number.

For Example:

If you are currently in cue 5 and you want to update through cue 10, you would use the following syntax:

- » **[Update] [Thru] <Cue> [10] <CueOnly/Track> [Enter]**

Update [+]

[+] can be used to specify a range of cues for updating. **[+]** can also be used with **[Record]** and **[Record Only]**.



Note: If no cue number is entered before the **[+]**, the current active cue will be used.

For Example:

To update only cues 5, 10, and 15:

- » **[Update] <Cue> [5] [+ <Cue> [1][0] [+ <Cue> [1][5] <CueOnly/Track> [Enter]**

To update the current cue and cue 7:

- » **[Update] [+ <Cue> [7] <CueOnly/Track> [Enter]**

Additions to Palettes

Changes in this section impact the Storing and Using Palettes chapter.

Palette Options

When recording palettes, three softkey options are available:

{By Type}

By Type palettes are created with 'default' channels which contain values that can be assigned to any other channel within the same fixture type. By Type palettes can also contain discrete channel values.

By Type palettes will display a 'T' in the lower corner of the direct selects and in the palette lists. A '+' will display after the 'T' if there are channels stored with discrete data.

See [Using By Type Palettes on page 11](#) for more information.

{Absolute}

Absolute palettes are palettes that when recalled the data is displayed and treated like absolute data applied to a channel. The data is never referenced.

An absolute palette will display with an 'A' in the lower corner of the direct selects and in the palette lists.

{Locked}

Locked palettes are palettes that are protected from being accidentally changed in Live.

A locked palette will display a "L" in the lower corner of the direct selects and in the palette lists.

Locked palettes can be updated by specifically calling the channels and the record target, [channel list] **[Update] [Record target] [Enter]**. Using **[Update] {Color Palette} [1] [Enter]** would not work in Live for a locked palette. However locked palettes are not protected in Blind.

Using By Type Palettes

Storing a By Type Palette

If **{By Type}** is used when recording, the lowest number channel of each fixture type will be the default channel. Generally, when storing by type palettes, you will want only one channel of each fixture type in use. Any additional channels in that fixture type will be recorded with discrete data.

- » **[1] [Thru] [5] [Record] [Int Palette] [1] {By Type} [Enter]** - Channels 1 through 5 are saved to Intensity Palette 1. Channels 1 through 5 are of the same fixture type. Channel 1 will be the default channel and channels 2 through 5 will be saved with discrete data.
- » **[1] [Thru] [5] [Record] {Intensity Palette 1} [Enter]** - If a by type palette is recorded without using the **{By Type}** softkey and the default channel is included in the record, the default channel's level will change and all other changes will be discrete.
- » **[1] [Thru] [5] [Record] {Intensity Palette 1} {Discrete} [Enter]** - If a default channel is included in a record where **{Discrete}** is used and another channel is tracking it, the default channel will be changed to having discrete data and the lowest numbered tracking channel will become the new default channel. All other channels in the record will also have discrete data.

Editing By Type Palettes in Blind

In Blind, the default channel's levels will display in blue, discrete data for the other channels will display in white, and any channels that are using the default channel value will display in magenta.

- » **[3] {By Type} [Enter]** - makes channel 3 the new default channel for that device type. If another channel for that type was the default channel, its data will now be discrete.

- » **[1] [0] [Thru] [2] [0] {Discrete} [Enter]** - changes the levels for channels 10 through 20 to discrete. If any of those channels are default, the lowest numbered tracking channel will become the new default channel.
- » **[5] [Thru] [8] [At] [Enter]** - removes the discrete data for channels 5 through 8. They will now use the default channel's values.
- » **{Color Palette} [2] {Discrete} [Enter]** - changes all tracking and default channels to discrete.
- » **{Intensity Palette} [5] {By Type} [Enter]** - makes the first channel of each device type a default channel.
- » **{Beam Palette} [3] {Cleanup} [Enter]** - converts palettes created in earlier versions of Eos Family software to by type palettes. This command will use the first channel of each type as the default, and allow other channels of the same type to use that value upon recall.

{Make Null} can be used with by type palette when you wish to withhold a channel from responding to a by type palette recall. The data will still display but will be in gray with a "N". See [Using {Make Null} on page 3](#).

Updating By Type Palettes

Pressing **{By Type}** after an **[Update]** command, with a channel tracking but no default channel included in the update, will cause the lowest numbered tracking channel's level to be updated into the default channel. The tracking channel will remain tracking. This means that when updating a default value in a by type palette, you don't need to know the default channel number.

When a default channel is included in an **[Update]** command without using **{By Type}** and another channel is tracking it, the default channel's data will be changed to discrete. The lowest numbered tracking channel will then become the new default channel. Any other updated channels will be made discrete.

Chapter 1

Storing and Using Presets

This chapter contains the following topics:

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About Presets

Presets are very similar to palettes in that they are collections of data for specific channels to facilitate cue creation. Presets, however, can collect **all** data for a given channel (intensity, focus, color, beam) rather than just one parameter type.

Up to 1000 presets may be stored in Element using decimals (up to three places) or whole numbers and they can contain absolute data and/or a mix of IFCB palettes. Presets can **not** refer to other presets.

Preset Options

When recording presets, three softkey options are available.

{Absolute}

Absolute presets are presets that when recalled the data is displayed and treated like absolute data applied to a channel. The data is never referenced. An absolute preset will display with an 'A' in the lower corner of the direct selects and in the presets list.

{By Type}

By Type presets are created with 'default' channels which contain values that can be assigned to any other channel within the same fixture type. By Type presets can also contain discrete channel values.

By Type presets will display a 'T' in the lower corner of the direct selects and in the presets list. A '+' will display after the 'T' if there are channels stored with discrete data.

{Locked}

Locked presets are presets that are protected from being accidentally changed in Live.

A locked preset will display a "L" in the lower corner of the direct selects and in the presets list.

Locked presets can be updated by specifically calling the channels and the record target, [channel list] [Update] [record target] [Enter]. Using [Update] [Preset] [1] [Enter] would not work in Live for a locked preset. However locked presets are not protected in Blind.

Storing Presets Live

Presets can be recorded live using the keypad and/or the direct selects. Both [Record] and [Record Only] can be used to record presets, with or without filters. See [Storing Data with Record Filters \(page 32\)](#) for more information.

[Record] will store all channels that are not at their default values, and it will record all information about those channels, including parameters that are still at default. Therefore presets can contain all of the same information as a cue, but they have no timing information or cue attributes (such as follow, delay, or cue overrides). When recorded or re-recorded, presets are automatically recalled on stage. Presets may be individually labeled and each has an optional notes field.

Storing Presets Using [Record]

The [Record] key will store all parameter data for channels that are not at their default values, as modified by the filter settings in the CIA. This will store all parameter data that is not default even if it is not manual data. If filters are used, only the parameters enabled by the filters are stored.

When you record data to a preset live, the channels involved in that preset will then actually be in that preset.



Note: To access [Preset] on Element, press [Shift] + [Intensity Palette] or use the {Preset} button in ML Controls.

The following methods can be used to store presets using [Record]:

- » **[Record] [Preset] [5] [Label] [name] [Enter]** - records all parameter data for all channels not at default and adds a label to preset 5.
- » **[Record] [Preset] [Next] [Enter]** - records data to the next sequential preset number.
- » **[-] [2] [Record] [Preset] [n] [Enter]** - stores the preset, withholding the group or channels specified.
- » **[channel list] [Record] [Preset] [6] [Enter]** - stores the preset, but only the data for the channel list supplied.
- » **[Record] & {Preset direct select}** - stores the preset to the specified direct select.
- » **[channel list] {AllINPs} [Record] [Preset] [8] [Enter]** - records all non-intensity parameters for the selected channels to the preset.



Note: When using selective record, the user must specify the channel list to be included (or excluded as the case may be) as part of the **[Record]** command. Otherwise, all parameters of channels with non-default values will be stored in the preset.



Note: You may also use the filters and **{Make Null}** as additional tools to decide what data will be stored. For more information on these features see [Using {Make Null} \(page 3\)](#) and [About Filters \(page 31\)](#).

When you re-record an existing Preset, a confirmation will be required, unless confirmations have been disabled in **Setup>Desk>Record Defaults>Record Confirm**.

Storing Presets Using [Record Only]

[Record Only] is a selective record process that stores **only manual parameter data**. Therefore, when used to record presets, only manual data for channels will be stored in the preset. As with **[Record]**, filters and **{Make Null}** can be used to further modify what information is stored. See [Storing Data with Record Filters \(page 32\)](#).

Double pressing **[Record]** will post Record Only to the command line.

The following methods can be used to store presets using **[Record Only]**:

- » **[Record Only] [Preset] [5] [Label] [name] [Enter]** - records **manual** parameter data for all channels and adds a label to preset 5.
- » **[Record Only] [Preset] [Next] [Enter]** - records manual data to the next sequential preset number.
- » **[-] [3] [Record Only] [Preset] [n] [Enter]** - stores the preset, withholding the group or channels specified.
- » **[Channel list] [Record Only] [Preset] [6] [Enter]** - stores the preset, but only the manual data for the channel list supplied.
- » **[Channel list] {Color} [Record Only] [Preset] [7] [Enter]** - stores only manual color data for the specified channels to the preset.

Using By Type Presets

Storing a By Type Preset

If **{By Type}** is used when recording, the lowest number channel of each fixture type will be the default channel. Generally, when storing by type presets, you will want only one channel of each fixture type in use. Any additional channels in that fixture type will be recorded with discrete data.

- » **[1] [Thru] [6] [Record] [Preset] [1] {By Type} [Enter]** - Channels 1 through 6 are saved to Preset 1. Channels 1 through 6 are of the same fixture type. Channel 1 will be the default channel, and channels 2 through 6 will be saved with discrete data.

- » **[1] [Thru] [6] [Record] [Preset] [1] [Enter]** - If a by type preset is rerecorded without using the **{By Type}** softkey and the default channel is included in the record, the default channel's level will change and all other changes will be discrete.
- » **[1] [Thru] [5] [Record] {Intensity Palette 1} {Discrete} [Enter]** - If a default channel is included in a record where **{Discrete}** is used and another channel is tracking it, the default channel will be changed to having discrete data and the lowest numbered tracking channel will become the new default channel. All other channels in the record will also have discrete data.

Editing By Type Presets in Blind

In Blind, the default channel's levels will display in blue, discrete data for the other channels will display in white, and any channels that are using the default channel value will display in magenta.

Ch	Intens	Intensity MSpeed	Pan	Tilt	Position MSpeed	Cyan	Magenta	Yellow	Color Select	Color Wheel Mode
71	FL	0	0	0	0	67	56	34	F1-	25
72	FL	0	0	0	0	67	56	61	F1-	25
73	FL	0	0	0	0	67	56	34	F1-	25
74	FL	0	0	0	0	67	56	34	F1-	25
75	FL	0	0	0	0	67	56	34	F1-	25
76	FL	0	0	0	0	67	56	34	F1-	25

Softkeys available for editing presets in blind are **{By Type}**, **{Discrete}**, and **{Cleanup}**.

- » **[3] {By Type} [Enter]** - makes channel 3 the new default channel for that device type. If another channel for that type was the default channel, its data will now be discrete.
- » **[1] [0] [Thru] [2] [0] {Discrete} [Enter]** - changes the levels for channels 10 through 20 to discrete. If any of those channels are default, the lowest numbered tracking channel will become the new default channel.
- » **[5] [Thru] [8] [At] [Enter]** - removes the discrete data for channels 5 through 8. They will now use the default channel's values.
- » **[Preset] [2] {Discrete} [Enter]** - changes all tracking and default channels to discrete.
- » **[Preset] [5] {By Type} [Enter]** - makes the first channel of each device type a default channel.
- » **[Preset] [3] {Cleanup} [Enter]** - converts presets created in earlier versions of Eos Family software to by type presets. This command will use the first channel of each type as the default, and allow other channels of the same type to use that value upon recall.

{Make Null} can be used with by type preset when you wish to withhold a channel from responding to a by type preset recall. The data will still display but will be in gray with a "N".

Updating By Type Presets

Pressing **{By Type}** after an **[Update]** command, with a channel tracking but no default channel included in the update, will cause the lowest numbered tracking channel's level to be updated into the default channel. The tracking channel will remain tracking. This means that when updating a default value in a by type preset, you don't need to know the default channel number.

When a default channel is included in an **[Update]** command without using **{By Type}** and another channel is tracking it, the default channel's data will be changed to discrete. The lowest numbered tracking channel will then become the new default channel. Any other updated channels will be made discrete.

Effects In Presets

Effects can be stored in a preset, and those presets can be used to create submasters and cues. However, the effect's data is only copied to the submaster or cue, it is no longer referenced through the preset.



Note: If used with submasters and cues, the data is not referenced. So if changes are made to the effect in the preset, the effect saved to the submasters and cues will remain unchanged.

The preset list display has a column for effects.

Recalling Presets

Channels must be selected when recalling a preset. If a selected channel or parameter has no value in the preset, it will stay in its current position. If you want to recall all channels in a preset, you can press **[Recall From] [Preset] [x]**. Presets on direct selects will grey out if they are not applicable for the current channel selection.

If you only want to recall certain parameters of the preset, select channels and enter the required parameters (or those not required, using the **[-]** key) in the command line (see command examples below).

When a preset is recalled, parameter changes will follow the manual timing defaults, if enabled.

You may recall presets using any of the following methods:

- » **{Preset direct select}** - recalls the associated preset data for selected channels.
- » **[Preset] [2] [Enter]** - recalls preset 2 for selected channels.
- » **[Channel List] [Preset] [2] [Enter]** - recalls the preset data for the channels in the selection list.
- » **[Channel List] {Color} [Preset] [5] [Enter]** - recalls only the color data from the specified preset for the specified channels.
- » **{Color} & {Preset direct select}** - recalls just the color data from the specified preset for selected channels.
- » **[Recall From] [Preset] [3] [At] [5] <0> [Enter]** - recalls all channels in preset 3, and sets all intensity values at 50%. The original intensity data is still linked to the preset. If the intensity change is desired you must update the preset to maintain the change and the link, or make the data absolute before storing to another record target.
- » **[Channel List] [Preset] [7] [Enter] [At] [/] [5] [Enter]** - recalls preset 7 for selected channels. Intensity values will be recalled at 50% of their recorded state. The intensity link is maintained. If the intensity change is desired the user either needs to update the preset to maintain the change and the link, or make the data absolute before storing to another record target.
- » **[Recall From] [Preset] [9] [Enter]** - selects all channels with data stored in preset 9.
- » **[1] [Recall From] [Preset] [1] [At] [5] [0] [Enter]** - recalls the intensity of channel 1 from preset 1 at 50% of the stored value. If channel 1 was set to 50 in preset 1, it's recalled value would be 25.

Editing Presets Live

There are two ways to edit a preset in Live. You may rerecord the preset or you may use **[Update]**.

Rerecord

Rerecording follows the conventions of **[Record]** and **[Record Only]**. The only exception is that a confirmation is required to actually rerecord the preset.

Two different mode for rerecording:

- » **[Record] [Preset] [5] [Enter] [Enter]** - overwrites the content completely.
- » **[Channel List] [Record] [Preset] [5] [Enter] [Enter]** - merges the data.

Update

[Update] is used to record parameter modifications back to a preset. When updating, you must specify the preset to be updated. You may do this using the keypad or the direct selects.

For the purposes of the following descriptions, assume that there are no active cues on stage. .

For Example:

To update a preset, first recall the preset for any channels you wish to edit.

» **[1] [Thru] [5] [Preset] [1] [Enter]**

or

» **[Recall From] [Preset] [1] [Enter]**

Make required changes to the desired parameters using the keypad or encoders in the ML Controls display. Once you have achieved the desired look, update the preset.

» **[Update] [Preset] [1] [Enter]**

or

» **[Update] & {Preset 1}**

When updating a preset, only channels that are already in the preset will be updated. You need to select channels or parameters to force new data into a preset when using **[Update]**.

Using the Preset List

The preset list displays all recorded presets. List views only allow you to change attributes; no editing can be done directly in list view.

Opening the Preset List

When you press the **[Shift] + [Intensity Palette]** twice, the preset list will open on a new tab (or brings the list view into focus if already open). You can also open the list view from the home screen or by pressing **[Tab] + [2][6]**.

Pressing the **{Edit}** softkey takes you to the blind view of the selected preset, in the last format you used in blind. This will allow you to edit the preset. You can change the blind display to spreadsheet or table view by pressing the **[Format]** key.

You can navigate the preset list using **[Next]** and **[Last]**.

Copy To

You can copy presets within the list to another location in the list using **[Copy To]**.

» **<Preset> [2] [Copy To] [9] [Enter] [Enter]** - copies the contents of preset 2 to preset 9. Preset 2 will remain in the list. The second **[Enter]** is not required if you have disabled confirmations in setup.

You can also use **[Copy To]** from palettes to presets.

Move To

You can move presets within the preset list using the **{Move To}** softkey. You can also hit **[Copy To] [Copy To]** to access **{Move To}**.

» **<Preset> [3] {Move To} [8] [Enter] [Enter]** - moves preset 3 to preset 8. Preset 3 will be removed from the list. The second **[Enter]** is not required if you have disabled confirmations in setup.

» **<Preset> [1] [Thru] [5] {Move To} [6] [Enter] [Enter]** - moves presets 1 through 5 to presets 6 through 10.

You can also move data from a palette to a preset and vice versa. It is important to remember that when using the **{Move To}** command that data is removed from its current location and moved to its new location.

Editing Presets in Blind

All presets can be viewed and edited in blind. To open a preset in blind, you can do any of the following:

- » Press **[Blind] & {Preset x}** - opens to the specific preset.
- » Press **[Tab] + [2][6]** - opens the preset list.
- » Press **[Shift]+[Intensity Palette]** twice and then **{Edit}** when a preset is selected in the list.



CAUTION: When editing presets in Blind, changes to presets are automatically stored. Therefore no update or record command is required.

You can change the blind display to spreadsheet or table view by pressing the **[Format]** key. In blind, the following softkeys are available when editing presets:

- » By Type
- » Absolute
- » Lock
- » Cleanup
- » Discrete
- » Offset
- » Make Null
- » Make Absolute
- » Replace With
- » Query

Editing in Table View

Table view shows the data for one preset at a time in a table. Channels are displayed on the Y axis and parameters are shown along the X axis. Viewing presets in the table is useful if you want to see data for numerous channels in one specific preset.

To change which preset you are viewing you may use the **[Next]** or **[Last]** keys or you may select the exact preset from the keypad or direct selects. You can make changes to the preset by selecting channels and altering parameter values. In addition to normal editing functions, you may also use the following commands in this view: **[Copy To]**, **[Recall From]**, **{Make Absolute}**, **{Make Null}**, **{Move To}**, and **{Replace With}**.

Here are some examples of the additional preset editing features you have while editing in table view:

- » **[select channels or parameters] {Make Abs}** - changes the data for any palette references within the preset into absolute data that no longer references another record target.
- » **[select channels or parameters] {Make Null}** - removes the data for the specified channel or parameter from the preset.
- » **[select channels or parameters] [At] [Enter]** - removes the data for the specified channel or parameter from the preset.
- » **[Preset] [5] {Move To} [Preset] [9] [Enter]** - this will move the contents of preset 5 to preset 9. Preset 9 will be created and preset 5 will be deleted.
- » **[Preset] [1] [Copy To] <Preset> [5] [Enter]** - this will copy the contents of preset 1 to preset 5. You may also copy ranges of presets to new locations.
- » **[1][Recall From][Preset][1][Enter]** - will recall the contents for channel 1 in preset 1.



Note: While editing presets in blind, hitting **[Recall From] [Recall From]** will put **[Recall From] [Preset]** on the command line.

Editing in Spreadsheet View

Spreadsheet view shows a range of presets along the Y axis and channels/channel parameters along the X axis. Viewing presets in spreadsheet view is useful when you want to compare data between presets.

You may select a preset from the spreadsheet using the **[Next]** or **[Last]** keys to move through the list or you may select the exact preset from the keypad. You may also select a range of presets to edit at once. You can make changes to the preset(s) by selecting channels and altering parameter values.

In addition to the examples given in [table view](#), here are some examples of the additional preset editing features you have while editing in spreadsheet view:

- » **[Preset] [1] [Thru] [5] {Move To} <Preset> [9] <Thru> [Enter]** - this will move presets 1-5 to presets 9-14 respectively. You do not have to supply the end value for Element to perform the move. If presets 9-14 already exist you will be asked to confirm this move.
- » **[Preset] [1] [Thru] [5] [Enter] {Iris} [5] [0] {Replace With} <Iris> [2] [5] [Enter]** - for presets 1-5, this command will replace any iris parameter values of 50 with values of 25. This range editing using **{Replace With}** can only be done in spreadsheet view.

Removing Channels From a Preset

You can remove specific channels from a preset. This can be done from blind.

For Example:

Open the preset in blind:

- » **[Blind] & [Preset]**

Select the preset you wish to edit:

- » **[Preset] [5] [Enter]**

Remove channels by pressing:

- » **[2] [+][4] [+][6] [Thru] [9] [At] [Enter]**

Or you can remove a specific channel parameter from the preset by pressing:

- » **[5] [+][7] {Color} [At] [Enter]**

You may also remove a channel/parameter from a range of presets by pressing:

- » **[Preset] [1] [Thru] [5] [Enter] [1] {Color} [At] [Enter]**

You can remove channels from live by pressing:

- » **[channel list] [Delete] [Preset] [2] [Enter]**

Deleting Presets

You may delete presets in the following ways:

- » **[Delete] [Preset] [1] [Enter]**
- » **[Delete] [Preset] [1] [Thru] [5] [Enter]**

Presets can be deleted from any screen, at any time. A confirmation is required to delete, unless confirmations have been disabled in **Setup>Desk>Record Defaults>Delete Confirm**.

Chapter 2

Using Fan

This chapter contains the following topics:

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Fanning References	24
Fanning Timing and Delays	24
Using Subgroups with Fan	24

About Fan

Fan provides the ability to spread parameter and timing values in a range across a channel selection set and have those values be evenly spaced. Fan is applied by channel selection or group order. By default, fan operation is from the start channel.

When **{Fan}** is pressed after a channel selection, the softkeys will repaint to the following fan styles:

- » **{Center}** - The middle channel in the order is set as the start and will remain unchanged, and the first and last channels will change in different directions. The level wheel will decrease the lower number channels and increase the higher number channels. **{Center}** only affects the level wheel.
- » **{Reverse}** - The selected channel order is reversed before applying the fan.
- » **{Mirror Out}** - The middle channel in the selected order is used as the starting channel and the first and last channels in the order are the end channels.
 - » **[5] [Thru] [1][0] [At] [1][0] [Thru] [3][0] {Fan} {Mirror Out} [Enter]** - sets channel 1 to 30%, 2 to 20%, 3 to 10%, 4 to 20%, and 5 to 30%.
- » **{Repeat}** - The number of channels that are fanned before the pattern is repeated.
 - » **[1] [Thru] [1][2] [At] [5][0] [Thru] [7][0] {Fan} {Repeat} [3] [Enter]** - sets channels 1,4,7, and 10 at 50%, 2,5,8, and 11 at 60%, and 3,6,9, and 12 at 70%.
- » **{Cluster}** - The channels are put into collections, which contains channels with all of the same value.
 - » **[1] [Thru] [1][2] [At] [5][0] [Thru] [8][0] {Fan} {Cluster} [4] [Enter]** - sets channels 1 through 3 at 50%, 4 through 6 at 60%, 7 through 9 at 70%, 10 through 12 at 80%.
- » **{Random}** - The selected channels are put in a random order before fan is applied.

Fanning Parameter Data

Fan values can be adjusted with either the ML Controls or via the keypad. To adjust the fan values with a virtual encoder in the ML Controls, select the required channels and provide a baseline, if necessary, followed by **{Fan}**.

If no value is entered, the current values will be used. When using virtual encoders to adjust fan, it is not necessary to specify the parameter to be fanned. This is determined by the virtual encoder used.

- » **[1] [Thru] [5] {Fan} [Enter]** - selects the channels 1 through 5 and puts the virtual encoders and level wheel into fan mode.
- » **[1] [Thru] [5] [At] [5] <0> {Fan} [Enter]** - selects the channels 1 through 5, sets a start level of 50% and puts the virtual encoders and level wheel into fan mode.
- » **[1] [Thru] [5] {Fan} {Mirror} [Enter]** - selects the channels 1 through 5 and puts the virtual encoders and level wheel into fan mode with mirror style.

Fan From the Command Line

A level or time command that uses **[Thru]** or a list of references is a command line fan command.



Note: The **{Fan}** key is not necessary unless a fan style other than the default is needed.

To adjust the fan values from the command line:

- » **[1] [Thru] [5] [At] [1] <0> [Thru] [5] <0> [Enter]** - sets channel 1 to 10%, 2 to 20%, 3 to 30%, 4 to 40%, and 5 to 50%. This is the default fan adjustment and the **{Fan}** command is not necessary.
- » **[1] [Thru] [5] [At] [1] <0> [Thru] [3] <0> {Fan} {Mirror} [Enter]** - sets channel 1 to 30%, 2 to 20%, 3 to 10%, 4 to 20%, and 5 to 30%.

Fanning References

When fanning references, such as palettes, if there are more than 2 reference lists are used then the data will be referenced data. The fan will be repeated if there are more channels than references.

- » **[1] [Thru] [5] [Int Palette] [1] [Thru] [3] [Enter]** - sets channel 1 to IP1, 2 to IP2, 3 to IP3, 4 to IP1, and 5 to IP2.

If the list contains 2 or less references, fan will be set to the levels between the references as absolute data.

- » **[1] [Thru] [5] [Int Palette] [1] [Thru] [2] [Enter]** - (Intensity palette 1 is all channels at 0% and Intensity palette 2 is all channels set to 100%.) sets channel 1 to 0%, 2 to 25%, 3 to 50%, 4 to 75%, and 5 to 100% as absolute data.

Fanning Timing and Delays

Fanning timing and delays work exactly like fanning parameters.

- » **[1] [Thru] [5] [Time] [6] [Thru] [1] [0] [Enter]** - sets the discrete times for channel 1 to 6 seconds, 2 to 7 seconds, 3 to 8 seconds, 4 to 9 seconds, and 5 to 10 seconds.
- » **[1] [Thru] [5] [Delay] [6] [Thru] [8] {Fan} {Mirror} [Enter]** - sets the discrete delays of channel 1 to 8 seconds, 2 to 7 seconds, 3 to 6 seconds, 4 to 7 seconds, and 5 to 8 seconds.

Using Subgroups with Fan

Subgroups can be used with the Fan feature. Channels in the same subgroup will act as a single channel when fanned.

For Example:

Group 1 is made up of channels 120 thru 130. Channels 120 thru 123 are one subgroup, channels 124 thru 126 are not in any subgroup, and channels 125 thru 130 are another subgroup.

- » **[Group] [1] {Fan} [Enter]**

Selects group 1 and puts it into fan mode. Rolling up the level wheel creates the following result. Channels 120 thru 123 share an intensity, channels 124 thru 126 each have different intensities, and channels 127 thru 130 share an intensity.



Chapter 3

Multiple Users

This chapter contains the following topics:

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About Multiple Users

Element can be set to act as a separate user from other Element consoles, RVIs, ETCnomad, and ETCnomad Pucks in the system, or it can be set to act as the same user as another Element, RVI, ETCnomad, or ETCnomad Puck. This is done by changing the user ID.

About User ID

When multiple users are on the network, they can all act as one combined user, as all separate users, or any of the varying degrees between.

Any Element, RVI, ETCnomad, or ETCnomad Puck can be a separate user on the Eos Family network. Certain devices work well as independent users while others are intended to share a user ID with another device. For example, consoles are likely candidates for working with a unique user ID while RVIs and ETCnomads can be useful sharing an ID with another device to track programming information from a second location.

Eos Family devices sharing User IDs will share certain data, while those with different IDs will not. Below are the differences in multi-console data depending on User ID.

Data shared between Eos Family devices with the same User ID

- » command line
- » null channels in live
- » selected channels
- » filters
- » selected cue
- » live/blind mode
- » setup>desk settings

Data specific to the Eos Family device, regardless of User ID

- » current fader page
- » current encoder page
- » focus on displays without command line
- » display configuration (layout, format, visible parameters, flexichannel)
- » paging without changing selected target or channels

Data identical between all Eos Family devices, regardless of User ID

- » all stage levels and edits
- » all data stored in the show file
- » playback, sub and grandmaster contents and progress

The default User ID for any Eos Family device is 1. You may change this based on your preference to allow/restrict the functionality described above.

Assigning User ID

User ID can be defined in **Setup>Desk>Display>User ID**. See [User Id \(page 2\)](#) for more information.

When multiple programmers are working on a system, partitioned control can be used to restrict a specific user's access to certain channels. This can help avoid overlapping control of channels by multiple programmers at once.

For more information on partitioned control, see [Using Partitions \(page 28\)](#)

Chapter 4

Using Partitioned Control

This chapter contains the following topics:

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Creating New Partitions	28
Deleting Partitions	29
Flexichannel in Partitioned Control	29
How to Use Partitions	29
Partition List	29
Setting Up Partitioned Control	29

About Partitioned Control

Partitioned control allows discrete control and programming of channels between multiple programmers.

When multiple programmers are working on an Eos Family system, partitioned control can be used to restrict a specific user's access to certain channels. This can help avoid overlapping control of channels by multiple programmers at once.

Channels can be included in more than one partition.

Partitions only affect which channels a user has access to.

Using Partitions

When partitions are enabled and a partition is selected, you may only record data for the channels included in the partition, with the exception of parking and unparking channel parameters or playing back cues. If you try to control a channel that is not in your partition, you must confirm that you want to control that channel. You will not, however, be able to store information for that channel.

If you select a range of channels and set them to a level and some of those channels are not included in the partition, you must confirm the command. After which, the command will be allowed on the channels not in the partition.

When you record a target (cue, preset, palette), only those channels that are partitioned to you are recorded. Other programmers' record actions to the same target can add to it (they do not replace it) unless channels are shared. When shared, the last value provided at the point of the record action will be stored.

Creating New Partitions

To create a new partition, press:

» **{Partition} [x] [Enter]** - where "x" is a number that does not yet exist in the partition list.

This will create a new partition, highlight it in the list, and (if partition is enabled) assign it as your partition.

To assign channels to that partition, enter them in the command line:

» **[1] [Thru] [9] [6] [Enter]**

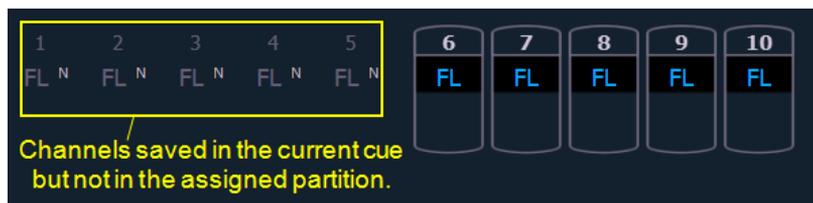
You can also use **[+]**, **[-]**, and **[Group]** to further modify the channels in the partition. When adding/subtracting channels to a partition, if you do not use **[+]** or **[-]** before channel numbers, the numbers will replace the channels in the partition, rather than adding to or subtracting from them. This overwriting does require a confirmation (if enabled in setup).

When you are finished, you can press **{Done}** to return to the setup screen.

Partitions on the Cue List

A **partition** may be assigned to the cue list. If a partition has already been applied to the cue list, any channels not in the cue list's partition will not be included in cues when they stored or replayed.

Any data for the cue list that already existed before a partition is applied, will be maintained, including data for channels not included in the partition. If data existed before the partition was assigned, in blind, channels that are not in the partition will display without a channel graphic, any levels will be in gray, and a small superscript N will display with it.



Assigned partitions will display in the external links column in the cue list index.

To assign a partition to the cue list:

» **[Cue] [1] [/] {Partition} [n] [Enter]**

To remove a partition from the cue list:

» **[Cue] [1] [/] {Partition} [Enter]**

Deleting Partitions

To delete any partition, simply type the syntax in the command line:

» **[Delete] {Partition} [5] [Enter] [Enter]** - deletes partition 5 from the list.

Preprogrammed partitions cannot be deleted.

Flexichannel in Partitioned Control

When partitioning is enabled, a new flexi state, "Partitioned" is available as a softkey. When this is enabled, the flexi state is limited to only those channels defined in the current partition. This view may be further modified by use of the remaining flexi states.

How to Use Partitions

The primary use of partitioned control is to allow more than one programmer to work on a show file at the same time without the risk of one user storing data for another user's partitioned channels.

The most common example of this situation is when one user is programming moving lights while another user programs conventional fixtures. Partitioned control allows these users to divide the channels between them so they may work simultaneously. If one user stores data using record or record only, partition control will guarantee that only data for their partitioned channels will be stored. Data for channels not in their partition will be ignored when performing any store commands.

Partition List

To view the partition list display, press the **{Partitions}** button in Show Settings. This display lists all existing partitions. There are four pre-programmed partitions in Element, they are:

- » **Partition 0** - No channels and no fader control. This is the default for all users when partitioned control is enabled for the first time on a show. To gain control, you must select a different partition.
- » **Partition 1** - All channels. Allows the user access to all channels.
- » **Partition 2** - Single Parameter Channels. Allows the user access to only channels with a single parameter.
- » **Partition 3** - Multiple Parameter Channels. Allows the user access to only channels with multiple parameters.
 - » To select a partition in the list, enter it in the command line.
- » **[Partition] [2] [Enter]**
 - » If partitioned control is enabled, this will now be your assigned partition.

Setting Up Partitioned Control

Partitioned Control is enabled or disabled in show settings. Partition defaults to "Disabled". Enabling or disabling partitioned control is a systemwide setting.

Chapter 5

Using Filters

This chapter contains the following topics:

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Storing Data with Record Filters	32

About Filters

Filters are used to determine which parameters can be stored to cues, palettes, and presets. The filter selection tool in the CIA affects record operations as long as the filters are set.



Note: Channel and parameter filters can be applied to faders and submasters. Those type of filters affect playback and not record functions.

Record Filters

Record filters are used to select specific parameter data to store to record targets. When no filters are selected, all parameters can be stored, as appropriate to the **[Record]**, **[Record Only]**, and selective record action used.



Note: When storing show data, applied filters are highlighted and allow the associated parameters to be stored in record targets.



Note: When filters are deselected (not highlighted), they **prohibit** storing the associated parameters.



Note: There is no difference between having all filters selected and having no filters selected (default). In either state, all parameters are available for recording.

Record filters are applied from the CIA using the following buttons: **{Filter}**, the parameter buttons in the CIA, and the parameter category buttons.

The parameter category buttons can be used to select filters, as follows:

- » Intensity (enables recording intensity data)
- » Focus (enables recording pan and tilt)
- » Color (enables recording color data)
- » Beam (enables recording all beam data)

To apply record filters by category:

1. Press **{Filter}**. The parameter buttons change to display filter selection. The **{Filter}** softkey will flash.
2. Press the parameter category softkey **{Intensity/Focus/Color/Beam}** for the category you want to include in the record target. All parameters in that category will be highlighted and "Filter On" will appear above the softkey.
3. Press **{Filter}** again. The buttons return to their normal appearance.

In subsequent record functions, only the filtered categories will be recorded. You may apply multiple category filters at once. Remember that applying all filters and no filters yields the same effect.

Partial Filters

If you do not want an entire category to be recorded, you may apply parameter specific filters (partial filters) instead.

To apply partial filters:

1. Press **{Filter}**. The parameter buttons change to display filter selection. The **{Filter}** softkey will flash.

2. Press the parameter button (for example **{Zoom}**) for the parameter you want to include in the record target. That parameter will be highlighted and “Filter On” will appear above the softkey.
3. Press **{Filter}** again. The buttons return to their normal appearance.

In subsequent record functions, only the filtered parameters will be recorded. You may apply as many partial filters at once, as you wish. Any **unfiltered** parameters will not be included in record actions. In live, unfiltered parameter data is displayed in its proper color, but a gray “N” (indicating null data) will appear in the upper right corner of the parameter’s field.

Removing Filters

Applying filters is a toggle state. To remove any filter, simply repeat the application process described above. When pressed again, any applied filter will be removed.

To remove all filters at once:

1. Press **{Filter}**. The parameter buttons change to display filter selection. **{Clear Filters}** appears in the upper left corner of the parameter buttons.
2. Press **{Clear Filters}**. Any applied filters will be removed and the highlights will turn off.
3. Press **{Filter}** again. The buttons return to their normal appearance. All parameters are now available to record functions.

Storing Data with Record Filters

If a record target is stored with filters in place, the filters allow only associated parameter data to be recorded in the target. Non-filtered data is not included when you record.

The various record targets are affected by filters in the following ways:

- » **Palettes** - Palettes by definition are already filtered. The color and beam filters can be used to further modify what is stored in the color and beam palettes, however.
- » **Presets** - Active filter settings impact what is stored in presets.
- » **Cues** - Active filter settings impact what is stored in cues, even when using “record only” commands.
- » **[Recall From]** - Recall from instructions are not affected by the filters.

Chapter 6

Virtual Media Server

This chapter contains the following topics:

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Creating a Pixel Map	36
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About Virtual Media Server

The virtual media server feature of Element is comprised of two areas, the virtual media server and its virtual layers, and pixel maps. These areas are completely dependent on each other.

The virtual media server is a feature used to create layouts of fixtures, known as pixel maps, which then applies media content (images, movies, text, and procedurally generated effects) by way of virtual media layers to the pixel map.

A pixel map is a layout of fixtures onto a grid, which determines order of playback and how the data will be interpreted and outputted to create the desired image or effect. A pixel map creates relationships among the channels in an X-Y grid so that the channels and their parameters can be associated with pixels in an image.

A virtual media layer contains one piece of media content. A pixel map can contain up to 12 virtual media layers, which can be stacked on top of each other or used separately.



Note: You may need to install the Eos Family Pixel Mapping Installer before using this feature. Please see the Eos Family Pixel Mapping Installer v1.0.1 Release Note for installation instructions.

Media Content

Images, movies, text, and html files can be applied to a pixel map.



Note: A stock library of media is provided when the Eos Family Pixel Mapping Installer is installed. Please see the Eos Family Pixel Mapping Installer v1.0.1 Release Note for installation instructions.

Additional media content can be installed. Supported media file formats are:

- » Images - .png, .jpg, .gif, .tiff, and .svg
- » Movies - any format that QuickTime® supports (.3gp .3gpp .3gpp2 .3gp2 .3g2 .3p2 .flc .h264 .hdmov .m4a .m4b .m4p .moo .moov .mov .movie .mp4 .mpg4 .mpg4 .mqv .mv4 .pic .pict .qif .qt .qti .qtif .tvod .vid)
- » Text - .txt
- » HTML - .htm, .html

Importing Media Content

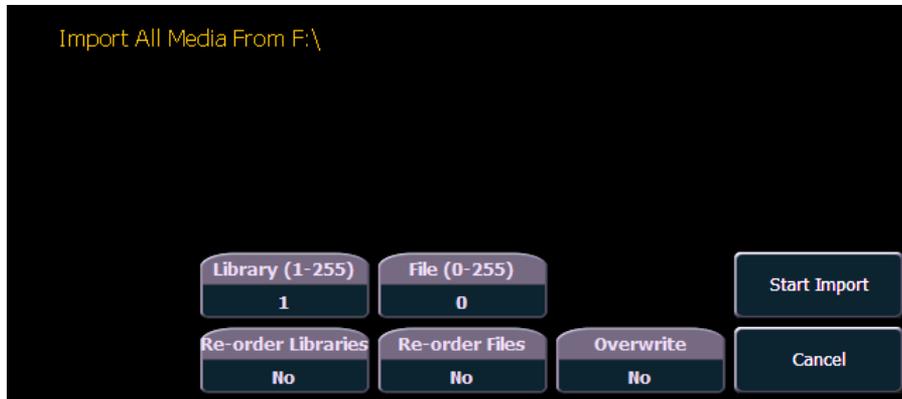
There are three ways to import media. Those methods are:

- » Import All Pixel Map Media - An automatic method for importing media.
- » File Manager - A manual method for importing media.
- » Import Show Pixel Map Media - An automatic method of importing all media needed for the current show file. Used by backup and clients. For more information on synchronizing media content, see [Synchronizing Media Archives \(page 47\)](#).

File names for media content need to follow the naming convention of file number_filename. For example, 002_Volcano.mov is a file name that would be recognized. When importing by using the file manager, you need to number the files prior to importing. However using Import All Pixel Map Media allows you to specify the library and file numbers, and the console will autonumber the file names as needed during the import process.

Using Import All Pixel Map Media

To import go to **Browser>File>Import>Pixel Map Media>All Pixel Map Media** and select the device with the media on it.



Options in this display include:

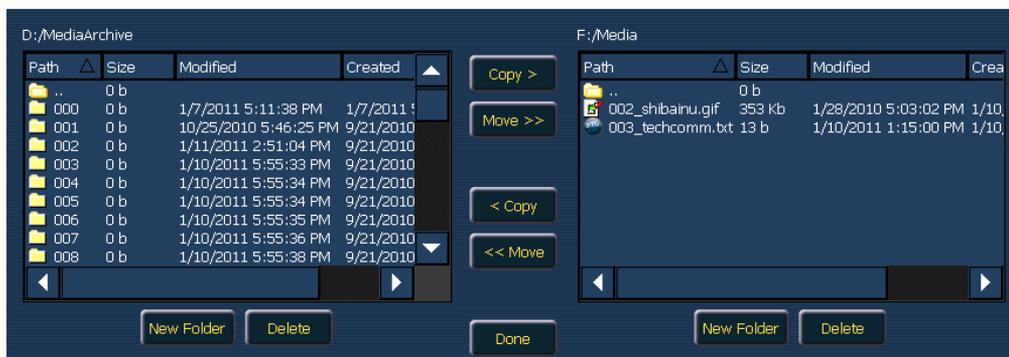
- » **{Library (1-255)}** - selects the library to import media.
- » **{File (0-255)}** - selects the file number.
- » **{Reorder Libraries}** - specify whether or not the library on the source device will be renumbered. If the source device's library is not numbered, it will be assigned the specified library number.
- » **{Reorder Files}** - specify whether or not the file(s) on the source device will be renumbered. If the source device's file(s) is not numbered, it will be assigned the specified file number.
- » **{Overwrite}** - overwrite the existing media files.
- » **{Start Import}** - begins the import process. A progress bar will appear to indicate the status of the import process. When finished, click **{Done}**.
- » **{Cancel}** - stops the import, and exits the display.

Importing with the File Manager

To import go to **ECU>Settings>Maintenance>File Manager**.

Note: Make sure your files follow the naming convention of file number_filename. If the files do not, they will not be recognized as media files. You can always import using Import All Pixel Map Media instead.

Select the device with the media on it in one window and in the other window select the MediaArchive folder. Inside the MediaArchive folder, you will see numbered folders. Those folders correspond to libraries. You can copy or move files.



Exporting Media Content

There are two ways to export media. Those methods are:

- » Export Pixel Map Media - An automatic method for exporting media.
- » File Manager - A manual method for exporting media.

Using Export Pixel Map Media

This is an automatic method of exporting all the media used in the current show file. This includes any pixel map media stored in cues, presets, submasters, etc.

To export, go to **Browser>File>Export>Show Pixel Map Media**. Select the device you want to export the media content to.

There are only two options available in this display:

- » **{Start Export}** - begins the export process. A progress bar will appear to indicate the status of the import process. When finished, click **{Done}**.
- » **{Cancel}** - stops the export and exits the display.

Using File Manager

Exporting with the file manager is very similar to importing with it. You select the files in the MediaArchive folder that you wish to export, and you can either copy or move them to your device.

Patching the Virtual Media Server and Layers

To get started using this feature, you must first patch a channel as the Virtual Media Server and additional channels as layers.

You will need to be in the patch by channel display.

In the patch display, enter the channel number that will be your virtual media server. Press **{Type}** then **{Manufctr}** to display the fixture library. Select **{ETC}**, **{Virtual}**, and then **{Server_Ver_1.0}**.

Enter the channel numbers that will be your virtual media layers. Press **{Type}** then **{Manufctr}** to display the fixture library. Select **{ETC}**, **{Virtual}**, and then **{Layer_Ver_1.0}**.

For information about **{Virtual Effect Layer}**, see [Using Two Color Gradients \(page 44\)](#).



Note: No addresses need to be assigned in patch for the virtual media server and layers.

Creating a Pixel Map

A pixel map is a layout of fixtures onto a grid, which determines order of playback and how the media content will be interpreted and outputted to create the desired image or effect.

A pixel map creates relationships among the fixtures in an X-Y grid so that the channels and their parameters can be associated with pixels in an image.

Limitations of pixel maps include:

- » 40 pixel maps per show file
- » 12 layers per pixel map
- » 256,000 pixels per pixel map grid

Open up the Pixel Map display, **Displays>More SK>Pixel Maps**. The display can also be opened from the home screen, or by using **[Tab] [9]**.

i **Note:** Hovering your cursor above the pixel map will display the column and row location for the pixel.



In the Pixel Map display, any numeric entry is assumed to be a Pixel Map. Each pixel map must have a unique number.

To create a pixel map, type in the number you want to assign to it and hit **[Enter]**.

The virtual media server and layer(s) need to be assigned to the pixel map. Using the softkeys, select **{Server Channel}** and the channel you patched as the Virtual Media Server.

Then select **{Layer Channels}** and the channels you patched as Virtual Media Layers.

In this display you can also label the pixel map, assign the interfaces it will use, and adjust the width and height.

Column and row guides can be created numerically in either the Pixel Map or in the Edit displays. The guides can aid in viewing a pixel map.

When that basic information has been assigned to the pixel map, press the **{Edit}** softkey to select the fixtures.

In the edit screen, you will be able to define the array and types of fixtures. To do this, you can select pixels from the map by using a touchscreen or by holding down the left button on a mouse and dragging across the pixels you wish to select.

Once the pixels have been selected, you need to select their fixture type and then assign the starting address or starting channel.

- » When either **{Starting Channel}** or **{Starting Address}** is selected, both fields will be cleared.
- » Address-based pixels can not overlap with channel-based pixels. This includes the entire DMX fixture footprint.
- » If using **{Starting Channel}**, any overlapping channel-based pixels will be removed and any overlapping address-based fixtures will be unpatched.
- » If using **{Starting Address}**, any overlapping address-based pixels will be removed and any overlapping channel-based fixtures will be unpatched.
- » When the **[Data]** key is latched, the address for channel-based pixels will display.
- » When **[Format]** is pressed, the address will toggle between port/offset and address number.

By default, the addresses will be organized in rows starting from the left to the right and top to bottom. The edit screen shows a representation of the current mapping. The pixels are color coded based on if they have been patched or not. A color coding guide is provided on the screen.

 **Note:** Any pixel can have its size adjusted for better representation of the actual fixtures. This is done by selecting the pixel and then dragging the vertical and/or horizontal borders.

 **Note:** A pixel map can be moved within the edit display by holding down the right mouse button. The map can be zoomed either by using a mouse wheel or by holding down **[Format]** and moving the level wheel.

Options available for changing the mapping:

- » **{Horizontal Order}** - toggle state from left to right to right to left
- » **{Vertical Order}** - toggle state from top to bottom to bottom to top
- » **{Direction}** - toggle state from rows to columns
- » Click the **{Apply}** button to see the changes made while still in the edit display.

In the edit display, the softkeys will repaint to the following mapping options:

 **Note:** To see the changes made by using the softkey mapping options, you don't need to press **{Apply}**.

- » **{Rotate 90}**
- » **{Flip V}**
- » **{Flip H}**
- » **{Invert}**

The **{Flash}** button can be used to check the address output while still in the edit display. **{Flash}** works the same as it does in Live.

When editing is finished, press the **{Done}** softkey to exit the edit display.

Working with the Virtual Media Server

Before you begin working with the Virtual Media Server, you will want to open the Pixel Map Preview display from the home screen or by using **[Tab] [1][0]**.

For manipulating the pixel maps, you can use the ML Controls, which can be opened from the home screen, by using **[Tab] [5]**, or by using the quick access tools.

 **Note:** For any output, the Server Channel must be set to a level along with any layers you are using.



Note: You can use Park and Address Check for Virtual Media Server outputs.

Server Channel Controls

When working with the Server Channel, the following controls will be available:

- » **{Intensity}**
 - » **{Pan}** and **{Tilt}** - used to adjust layers within the frame.
 - » **{Color}** - filters color for all layers.
 - » **{FoView}** - field of view, or perspective.
 - » **{Crossfade}** - used to adjust the priority when devices in the pixel map are also used as desk channels. -100 gives the pixel map priority, and +100 give the desk channel priority. At 0 (the default) the output is calculated HTP for intensity and LTP for NPs.
- The Virtual Media Server crossfade parameter level will display in subscript beside the intensity.
- » **{Scale}** - adjusts Scale of all layers.
 - » **{Aspect Ratio}** - adjusts aspect ratio of all layers.
 - » **{XYZ Rotation Controls}** - rotation control for all layers



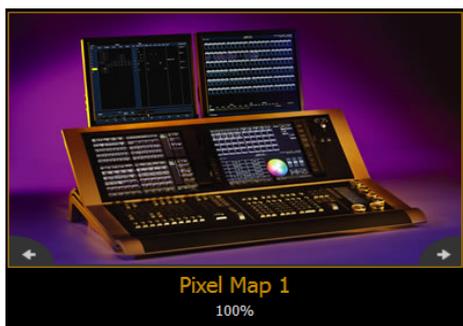
Layer Channel Controls

When working with the Layer Channels, the following controls will be available:

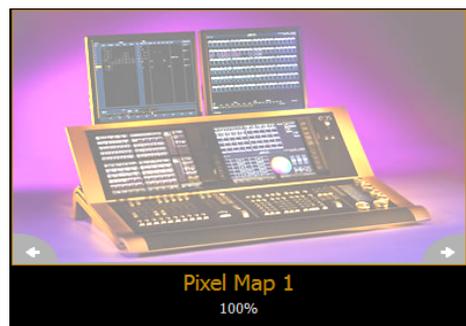
- » **{Intensity}**
- » **{Pan}** and **{Tilt}** - used to adjust the image of the individual layer within the frame.
- » **{Color}** - filters the color of the content. For example, if all the colors are set to full, the content will play all colors normally. However if blue is at 0, then only the red and green pixels of the content will play. The color and gel pickers can be used to select color filtering quickly.
- » **{Negative On/Off}** - with negative on, the output is the negative of the content. With it off, the content plays back normally.
- » **{Image Brightness}** - this varies from intensity. The following images illustrates the differences between image brightness and intensity.



Note: All Virtual Media Layers operate in 16-bit color mode.



0% Brightness, Full Intensity



50% Brightness, Full Intensity

- » **{Playback Mode 1}**:
 - » **{Display Centered}**
 - » **{Display In Frame}**

- » {Display Out Frame}
- » {Play Loop Forward}
- » {Play Loop Reverse}
- » {Play Once Forward}
- » {Play Once Reverse}
- » {Stop}
- » {Playback Speed}
- » {In Point} - determines where in the clip (frame number) you want to enter in.
- » {Out Point} - determines where in the clip (frame number) you want to exit.
- » {Mix Modes} - sets how the layers will interact. The following table shows the various mixer modes available. To illustrate the modes, the following layers were used:



Top Layer

Bottom Layer

Mode	Description	Result
{Over} (Default)	Top layer blended with bottom layer	
{In}	Top layer with opacity reduced by opacity of bottom layer	
{Out}	Top layer with opacity reduced by inverse opacity of bottom layer	

Mode	Description	Result
{Atop}	Top layer with opacity reduced by opacity of bottom layer and then blended with bottom layer	
{Add}	Top and bottom layers color and opacity added together	
{Subtract}	Top and bottom layers color and opacity subtracted from each other	
{Multiply}	Top and bottom layers color and opacity multiplied together	
{Screen}	Top and bottom layers colors inverted and then multiplied together	

Mode	Description	Result
{Overlay}	Does a multiply or screen effect based on the lightness or darkness of the bottom layer	
{Lighten}	Top layer's color merges with bottom layer's color, with the lighter color winning	
{Darken}	Top layer's color merges with the bottom layer's color, with the darker color winning	
{Dodge}	Bottom layer's color brightened to reflect top layer's color	
{Burn}	Bottom layer's color darkened to reflect the top layer's color	

Mode	Description	Result
{Hard Light}	Does a multiply or screen effect on the lightness or darkness of the top layer	
{Soft Light}	Darkens or lightens colors depending on the top layer	
{Xor}	Top layer with opacity reduced by inverse opacity of bottom layer, and then blended with the bottom layer with opacity reduced by the inverse opacity of the top layer	

- » **{Library}** - selects the image library.
- » **{File}** - selects the media file within the selected library.
- » **{Mask On/Off}** - masks takes a lower layer and a higher layer, finds only the non-transparent pixels they have in common, and then displays the common pixels of the higher layer.
- » **{FoView}** - perspective
- » **{Scale}** - changes the scale of the content to either be larger or smaller than the standard content playback.
- » **{Aspect Ratio}** - stretches or shrinks the content only along the X axis, making it wide or squished looking. Z Rotate can be used to modify the aspect ratio along the Y axis.
- » **{XYZ Rotation Controls}**

Effect Layers

The Virtual Media Server allows you to use procedurally generated content. This is content that is created algorithmically in real time, instead of rendering file based media.

In order to use procedurally generated content, you must patch the pixel map layer as a virtual effect layer instead of a virtual media layer. Setting up the pixel map is the same as for using virtual media layers. There are two versions of the effect layer, **{Effect Layer Ver 1.0}** and **{Effect Layer Ver 1.1}**.

Types of Effects

There are three main effect types:

- » Two color gradients - adjustable gradients with start and end colors
- » Rainbow gradients - fixed gradient, full hue spectrum
- » Perlin noise - good for animating random color effects, adjustable gradients

The effects are stored in file 1. File 1:0 is a home position of no effect. 1 - 3 are perlin noise effects, 4 is a perlin noise/rainbow gradient, 5-9 are rainbow gradients, and 10-19 are two color gradients.

Effects have various options of additional control.



Using Two Color Gradients

For the effects that use two color gradients (two color and perlin noise), there are several options for control of the gradients. The two colors are known as the start and end colors. Those options include:

- » **{Intensity}** and **{Intensity 2}** - specifies the opacity of the start and end colors respectively for Virtual Effect Layer 1.0. If you want to fade a two color effect using this layer, you will need to fade both **{Intensity}** and **{Intensity 2}**.
- » **{Intensity 2}** and **{Intensity 3}** - specifies the opacity of the start and end colors respectively. **{Intensity}** is a master opacity control for the entire layer. This is for Virtual Effect Layer 1.1. If you want to fade a two color effect using this layer, you can just fade the **{Intensity}**.
- » **{Red}**, **{Green}**, **{Blue}** or **{Hue}** and **{Saturation}** - specifies the start color. You can also use the Start Color picker.
- » **{Red 2}**, **{Blue 2}**, and **{Green 2}** - specifies the end color. You can also use the End Color picker.
- » **{In Point 1}** and **{Out Point 1}** - changes the distribution of the two colors in the gradient. In Point 1 moves the start color position closer to the end color. Out Point 1 moves the end color position closer to the start color.
- » **{Playback Mode 1}** - basic animation, forward or reverse.
- » **{Playback Speed 1}** - speed of animation.
- » **{Layer Effect}** - adjusts the number of repeats in the gradient. Layer Effect has a range of -100% to 100%. At the home value of 0%, one full gradient is shown. Moving toward 0%, you will see less of the gradient and moving toward 100%, you will see up to four repetitions of the gradient.



Note: The button **{Layer Effect 2}** is for use with perlin noise effects.

Using Rainbow Gradients

For Rainbow Gradients, the colors cannot be adjusted. But the number of repeats can be adjusted by using **{Layer Effect}**. **{Playback Mode 1}** and **{Playback Speed 1}** work in the same way as for two color gradients.

Using Perlin Noise

For perlin noise effects, there are different options for control:

- » **{Playback Mode 1}** - basic animation of noise, forward or reverse.
- » **{Playback Speed 1}** - speed of animation.

- » **{Layer Effect}** - adjusts the amount of noise. -100% equals very little noise, and 100% equals a lot of noise.
- » **{Layer Effect 2}** - adjusts the horizontal scrolling speed. -100% equals a fast left scroll, 0% equals no scrolling, and 100% equals a fast right scroll.

Effects Color Pickers

The effect layers have a two color pickers for selecting the start and end colors.



You can copy or swap a color between the two color pickers using the buttons located between them.



Pixel Mapping in a Multi-Console System

When using file based media in a multi-console environment, the primary console should be used as the 'base' media archive.

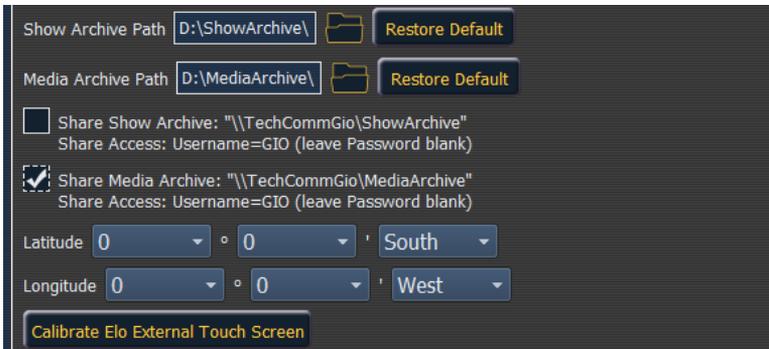
Media can be imported to the primary, and the backup console and/or any other clients can then synchronize their own, local media archives with the primary. The backup must synchronize media with the primary in the event that the backup must take control as the master. For clients, synchronizing the media is optional but useful if you wish to see the media playing back in the Pixel Map Preview display.

Steps for Configuring a Multi-Console System

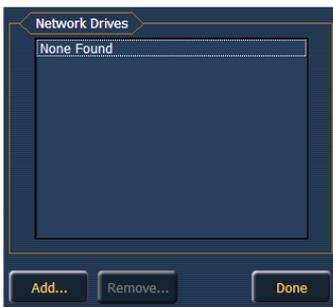
Once the Eos Family Pixel Mapping Installer has been installed on all consoles, follow these steps to configure your multi-console system:

Setting up the Primary

1. On the primary console, exit to the Eos Configuration Utility (ECU).
2. Press the **{Settings}** button.
3. Press **{General}** if needed.
4. Make sure that the **{Share Media Archive}** box is checked. This will allow for sharing of the primary's media archive. Copy the path name, you will need it to setup the backup and/or client.



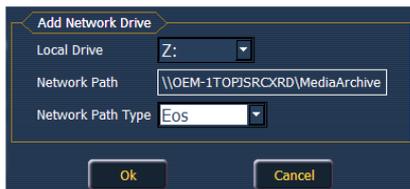
5. Setting up the Backup and Clients
6. On the backup or client, exit to the Eos Configuration Utility (ECU).
7. Press the **{Settings}** button.
8. Press **{Maintenance}**.
9. Press **{Network Drives}**.



10. In the Network Drives display, click the **{Add}** button.
11. In the Add Network Drive display, choose a drive letter for **{Local Drive}**.



12. Enter in the **{Network Path}**. The path name is listed next to the primary's **{Share Media Archive}** checkbox.
13. Select the appropriate console type for the **{Network Path Type}**.



14. Click **{Ok}**. You will now be able to access the primary's media archive from the backup or client. This new drive will appear in the browser like a USB drive.
15. Click **{Done}** and launch the Eos application.

Synchronizing Media Archives

To view media playback in the Pixel Map Preview display, you will need to first import the required media into your backup and/or client's local media archive. This is done from the browser. There are two options for importing media:

- » Import Show Pixel Map Media - This import function should be used by the backups and clients. It is the easiest way to ensure that your console will have all of the media required by the current show file.
- » Import All Pixel Map Media - This import function should be used by the primary to load the base media content and later to load media on the fly as required. This import function provides more complex options, like targeting which Library and File the media data will be imported into. See [Importing Media Content \(page 34\)](#).

Steps for Synchronizing Show Pixel Map Media

1. On the backup or client, navigate to the browser.
2. Expand **File>Import>Import Pixel Map Media>Import Show Pixel Map Media**.



3. Select the appropriate network drive.
4. The Import Show Media display will open. Press the **{Start Import}** button.
5. A progress bar will appear to indicate the status of the import process. When finished, click **{Done}**. You will now be able to see the media playing in the Pixel Map Preview display on the backup and/or clients.

ETC Supplement

Eos Family v2.6.0 Supplement to Manual

The following information is new for version 2.6.0. For more information about the topics covered in this supplement, please see the Eos Titanium, Eos, and Gio v2.0 Operations Manual, Ion v2.0 Operations Manual, and Element v2.1 User Manual, and should be used in conjunction with it.



Note: Many functions and controls available on other Eos Family consoles were added to Element with version 2.6. Please see the Element v2.6.0 Supplement for additional information on those functions and controls.

Managing Show Files

Changes in this section impact the Managing Show Files chapter.

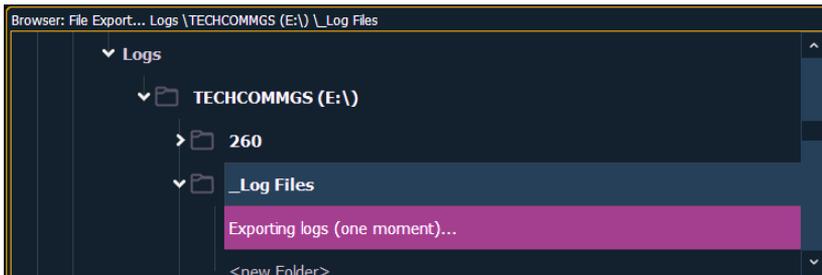
Partition and Fader Configuration Tiles

Partitions and Fader Configuration have both been added as component options in the partial show loading, merge, print, and clear target areas.

Exporting Logs

The ability to save log files has been added to **Display>File>Export**. Select the location for the export, the Show File Archive, a File Server (if connected), or to a USB device, and press **[Select]**.

An exporting logs message will appear while the log files are being created.



Importing CSV Files

The ability to import CSV files has been added to **Displays>File>Import**.

To import a CSV file, navigate within the Browser to: **File>Import>CSV>(Name of File to Import)** and press **[Select]**. You will be asked to confirm the import.



Note: Not all data is saved to a CSV file. It is recommended that you first export as a CSV file, modify the file as needed, and then import.

Print Includes Scenes and Cue Notes

When printing to a PDF file, scenes and cue notes are now included with cues.

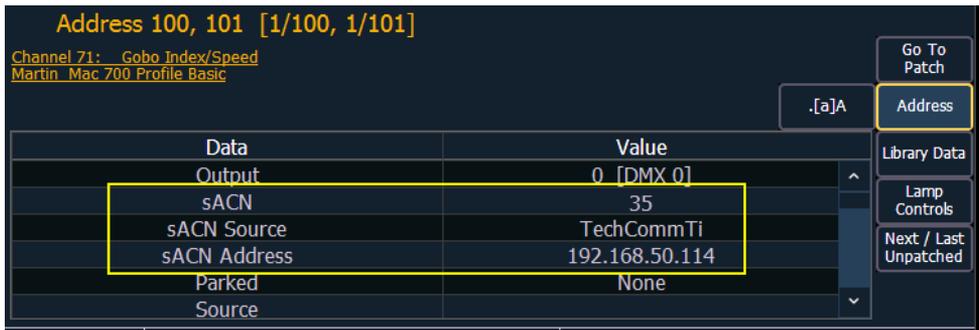
Changes to About

This section discusses the changes to About.

sACN Information in About Address

The **[About]** Address display now has rows for sACN source, address, and level.





Column Added to About IFCB Palettes

In **[About]** IFCB Palettes, a new column, Stored in Presets, has been added to **{Usage}**. This column displays the presets that the selected palette are stored in.

Changes to Displays

The section discusses the changes to Displays.

Quick Access

Quick Access tools are available at the top of each display.



There are three icons:

- » Wand - popup magic sheet
- » Moving Light Beams - popup moving light controls
- » Camera -popup snapshots

Popup Magic Sheet

This option allows you to view a favorite magic sheet in a small popup window over your current display. The popup magic sheet functions just like a traditional magic sheet and is interactive.

Press the wand icon to close the display when opened.

A popup magic sheet can be assigned in **Setup>Show Settings>Popup Magic Sheet**. If a magic sheet has not been assigned in Setup, when you first click the popup magic sheet icon, you will be able to select a default magic sheet from a list of the available ones.

In **Setup>Show Settings>Popup Nav Lock**, you can enable or disable the zoom and scroll navigation for popup magic sheets. This option is enabled by default.

Popup ML Controls

This option allows you quick access to the ML controls display in a small popup window over your current display.

Press the moving light beams icon to close the display when opened.

Popup Snapshots

This option displays assigned snapshots in a small popup window for quick access. Select a snapshot to recall it.

Snapshots can be assigned to display here by clicking Favorite when you record the snapshot or by going to the Snapshot List. See [Snapshots on page 6](#) for more information.

Press the camera icon to close the display when opened.

About + Display Toggles

While in live/blind, you can use the **[About]** key to view additional information.

When in an **[About]** mode, the mode type will display in the upper left hand corner of the live/blind display.

The following is a list of the **[About]** modes available in the live/blind displays:



Note: Double press **[About] + [key]** to latch the mode.



Note: To display non-manual data, press **[Data]** twice to latch.

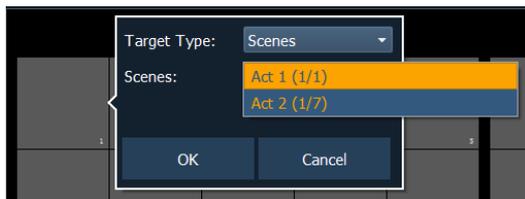
- » **[About] + [Live]** - displays the DMX values.
- » **[About] + [Address]** - displays the addresses.
- » **[About] + [Data]** - displays non-manual levels.
- » **[About] + [Park]** - displays the parked levels.
- » **[About] + [Part]** - displays the cue part number for each parameter.
- » **[About] + [Cue]** - displays the source target type and number. For cues, the cue list and cue number that contained the last move will display.
- » **[About] + [Mark]** - displays the mark cue used by the channels.
- » **[About] + [Next]/[Last]** - displays the next cue that the channels move in or the last cue that the channels moved in.
- » **[About] + [Label]** - displays the reference labels. **[Shift] + [Label]** adds a note to a currently selected cue.
- » **[About] + [Time]** - displays the discrete time.
- » **[About] + [Path]/{Color Path}** - displays the color paths.



Note: To page while in these modes, release the second button while keeping **[About]** held down.

Scenes on Custom Direct Selects

Scenes can be assigned to custom direct selects. To assign a scene to a direct select, you can either tap on a direct select to open the configuration window, or you can use the command line.



From the configuration window, you can select the target type of scene, and the scene number. Only one scene can be assigned at a time.

From the command line, you can select a scene, such as **[Cue] [1] {Attributes} {Scene} [1] [Enter]**. Then double click on a direct select to assign the selection.

Reset Columns

A new option has been added to the tab tools menu.

- » **Reset Columns** - resets all of the column widths in the selected tab to Eos defaults. This option will only be available for displays with columns.

Collapsing the Parameter Display

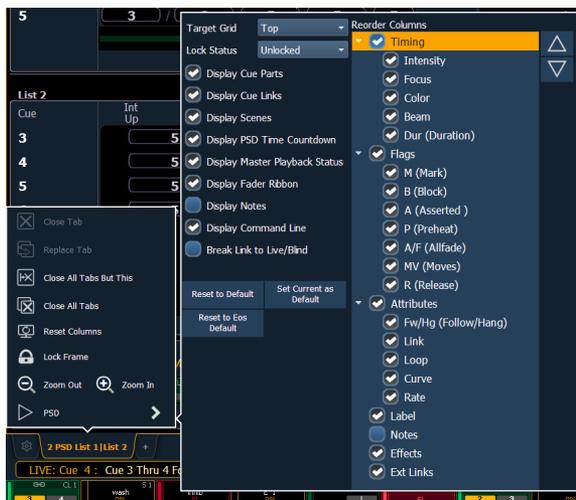
The parameter display can be collapsed when working with some displays that use the CIA, such as About and Query. A collapse/expand arrow will display in the last column where this option is available.

When collapsed, only the **{All NPs}**, **{All Speed}**, and **{Expand Arrow}** buttons will be displayed.



Playback Status Display Configuration Menu

An option for displaying scenes has been added to the configuration menu. When enabled, the scene green bar will display above the cue that the scene is associated with in the PSD. By default, this option is enabled.

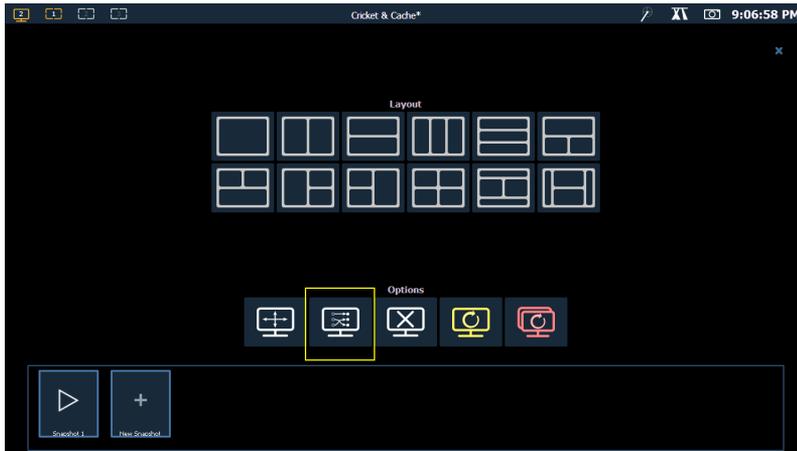


Blind Spreadsheet Label Column

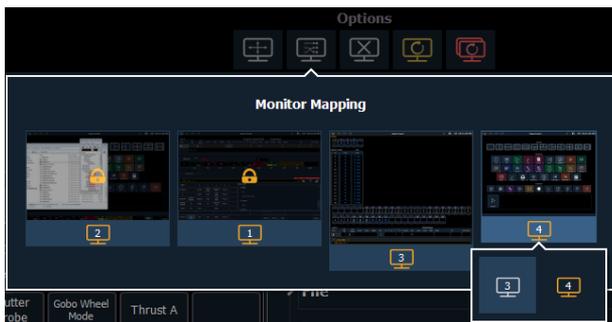
A label column has been added to the blind spreadsheet display. This column displays cue labels.

Monitor Mapping

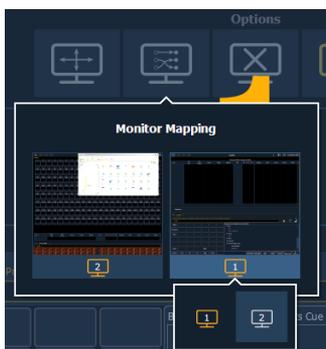
A new monitor mapping option has been added to the Display Controls Screen.



Select this icon to arrange your monitors without having to go into the ECU. This function gives you better control of your snapshots.



Since Ion and Element are limited to two monitors, the monitor mapping display is slightly different.



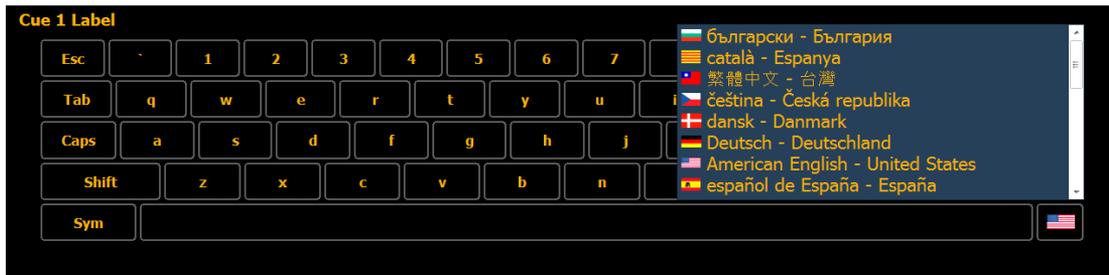
Click on a monitor to display the available numbers, and then click on the number to assign it.

Note: On-board touchscreens are locked, and their arrangement cannot be changed.

Note: A left to right arrangement is recommended.

Alphanumeric Keyboard Change

When the virtual alphanumeric keyboard displays, you can change the language of the keyboard by using the flag drop-down menu.



Storing and Using Submasters

Changes in this section impact the Storing and Using Submasters chapter.

New Submaster Options

The following are new button options for submasters:

- » **Mark NPs** - If no non-intensity parameters are owned by the submaster, it will fade the parameters on any dark channels in bump up time. If any non-intensity parameters are owned by the submaster, it releases the non-intensity parameters in bump down time. Dwell time and mode are ignored. A submaster must be mapped before this option will be available.
- » **Start Stop Effect** - starts the effect while ignoring dwell times. Will stop effects if any are running. (In previous software versions, there was only a **{Stop Effect}** option.)
- » **Macro** - allows you to assign a macro as a button action.

The following are new submaster fader options:

- » **Effect Master** - masters the entry/exit mode of the effects (size, rate or both).
- » **Levels Only** - masters the channel levels without mastering the effect.

The following is a new submaster property:

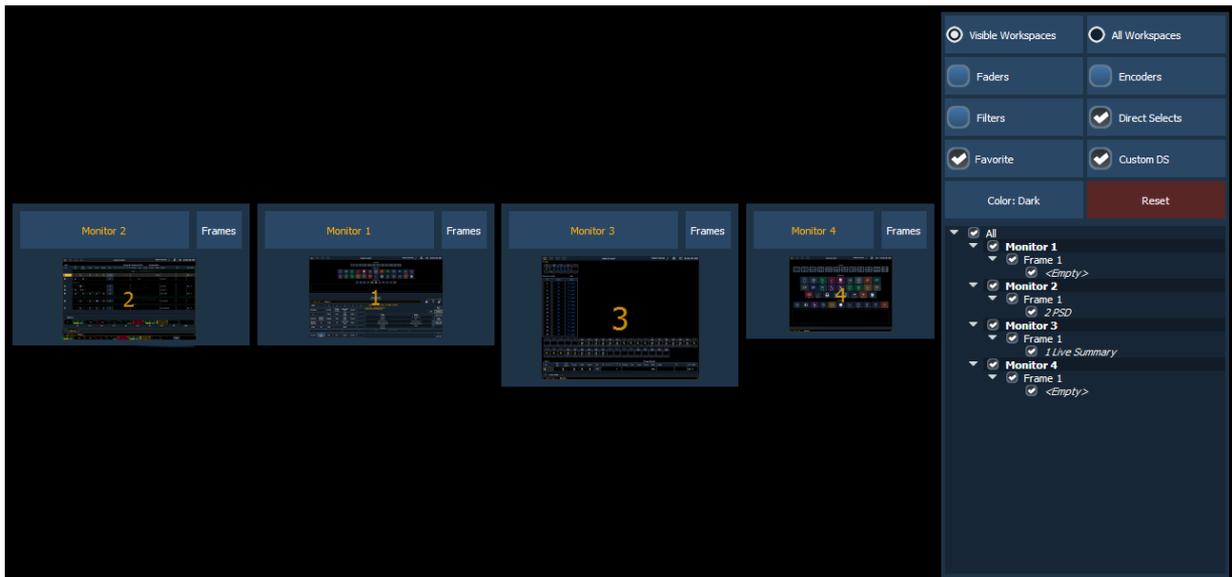
- » **{FX Off 0}** - starts the effect when master fader is moved from 0, stops the effect when it is moved to 0. This is enabled by default.

Storing and Using Snapshots

Changes in this section impact the Storing and Using Snapshots chapter.

Snapshots

In version 2.6, you have greater control over what is all included in a snapshot. When recording a snapshot, you will see a preview of all of the displays as they will be recorded in the snapshot. You can choose to select/deselect various components, monitors, frames, etc from your snapshot.



From the snapshot menu, the following options are available:

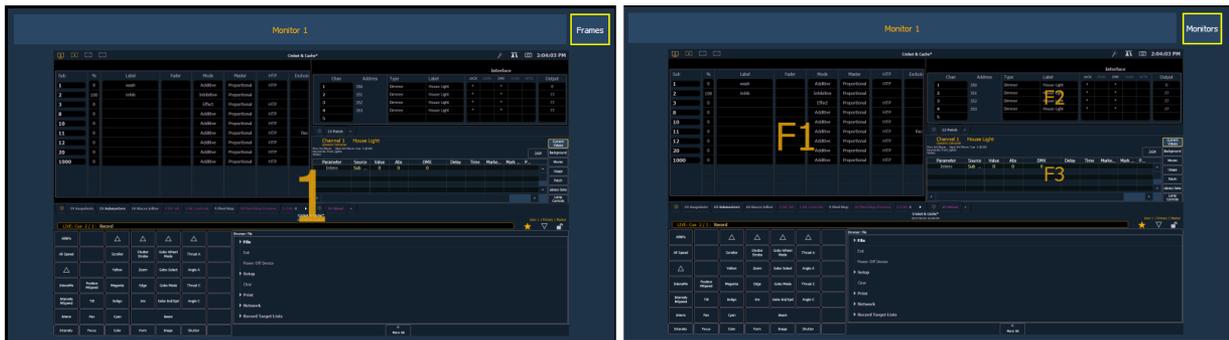
- » **Visible Workspaces** - includes only the visible workspaces.
- » **All Workspaces** - include all workspaces, including those not visible at the time of recording.
- » **Faders** - captures the current state of the faders including: fader page mapping, position of all submasters, and pending cues based on configuration.
- » **Encoders** - records the current page of the encoders.
- » **Filters** - records the current setting of the record filters.
- » **Direct Selects** - when used without visible workspaces selected, this option will recall all direct select tabs and their settings.
- » **Favorite** - the snapshot will display in the quick access window. See [Quick Access on page 2](#) for more information.
- » **Custom DS** - a snapshot will recall the targets that each of the custom direct select buttons are mapped to, unless the snapshot does not have custom direct select button mapping.
- » **Color** - assign colors (**{Red}**, **{Green}**, or **{White}**) or **{Dark}** to a snapshot. **{Dark}** assigns no color to the snapshot. The colors will display beside the snapshots name in a direct select, and/or if that snapshot has been assigned to one of the customizable hardkeys on Eos Ti, Gio, Gio @ 5, and RPU.
- » **Reset** - sets the menu back to its defaults.

You can choose to include or exclude monitors, frames, and tabs in the area below the snapshot menu by checking or unchecking in the list.

When a frame or tab has been excluded, an - icon will display to indicate that not everything on that monitor will be saved. A checkmark icon will display when everything on the monitor will be saved.



Monitors and frames can also be selected or deselected in the preview area. Use the **{Frames/Monitors}** button to select whether you will see monitor or frame numbers in the preview area.



When a monitor or frame has been deselected, it will be greyed out. Deselected frames will also have a small red circle with a slash on them.

See [Monitor Mapping on page 4](#) for information about arranging your monitors for better control when creating snapshots.

Manual Control

Changes in this section impact the Basic Manual Control or the Advanced Manual Control chapter.

Copy To From Absolute

The ability to use **[Copy To]** with **{From Absolute}** was added in version 2.6.

- » **[1] [Copy To] [2] {From Absolute} [Enter]** - sets channel 2 to channel 1's absolute level.

Priority Mark

When setting mark cues, you assign a priority marking using the softkeys **{High Priority}** and **{Low Priority}**. When marking, channels will attempt to mark to high priority cues first. Cues that are flagged with just Mark are considered normal priority. Channels will attempt to mark to them second if a high priority cue can not be used. Low Priority cues will be used last if a high or normal priority cue could not be used.

The following indicators are used in the Mark flag area:

- » **mh** - indicates that a cue has been flagged as high priority mark, but nothing is marking to it yet.
- » **Mh** - cue has been flagged as high priority, and lights are marking to it.
- » **ml** - indicates that a cue has been flagged as low priority mark, but nothing is marking to it yet.
- » **MI** - cue has been flagged as high priority, and lights are marking to it.

Target Numbering Up to Three Decimal Places

Record targets can now be stored with numbers that use up to three decimal places.

- » Whole numbered target
- » Tenths (.1) numbered target
- » Hundredths (.01) numbered target
- » Thousandths (.001) numbered target

Those record targets include:

- » Cues
- » Presets
- » Palettes
- » Groups

Additional Query Conditions

The following is a list of additional query conditions that were added in 2.6.

When **{Query}** /**{/Query}** is used, these new softkeys will be available:

- » Moves Only
- » Unpatched
- » Mark (cue where the intensity is active) (Not available on Element)
- » Less Than (includes equal to)
- » Greater Than (includes equal to)
- » Broken Mark (Not available on Element)
- » Marking (future cue) (Not available on Element)



The CIA also repaints to display all of the available softkeys by which you can search. These can be used in defining your query criteria.

- » **{Default}** - includes the query softkeys along with additional query conditions.
- » **{Text}**
 - » **{Keywords}** - displays buttons for all the text used in the text 1-10 fields and for all of the default keywords in Patch.
 - » **{Gel}** - displays all of the gels used in the current show file.
 - » **{Text 1} - {Text 10}** - displays only the text used in that text field.
- » **{Fixture Types}** - displays buttons for all of the fixture types used in the current show file.

With the new softkeys, the following is a list of additional new Query conditions:

- » Track
- » Up Moves
- » Down Moves
- » Live Moves
- » Dark Moves
- » Autoblock
- » Block
- » Assert (not available on Element)
- » Part
- » Park
- » Time
- » Delay
- » Capture (not available on Element)

Fader Configuration

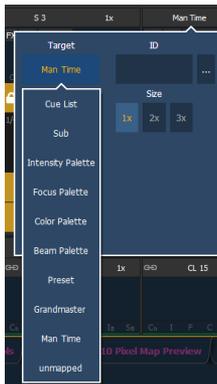
Changes in this section impact Fader Configuration.

Manual Time Master

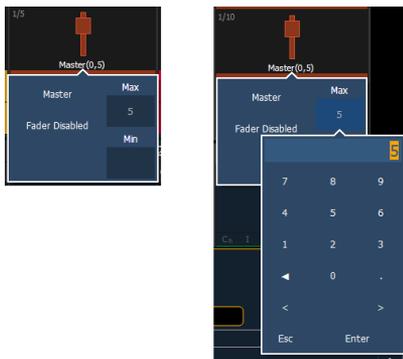
A new target type has been added to fader configuration. A fader can be mapped as a manual time master.



Note: Manual Time Master applies to changes made manually, not to playback.



A manual time master can be used to impact any manual control timing. For a manual time master, you need to assign a minimum and maximum time settings to the fader. By default, the minimum is set to 0 seconds when the fader is completely down, and maximum is 5 seconds when the fader is at full. To change the timing, click on the box and enter the time from the popup number pad.



The fader buttons can be assigned as bump, disabled, or [macro](#). It is recommended that the bottom button be set to bump for turning the fader on/off. When turned on, the LED will be solid green.



Note: The setting of the manual time master is ignored unless turned on. Changing the manual timing master will not impact any manual changes already in motion.

The fader ribbon will display the label of M Time to indicate a manual time master fader.



Note: Channel and parameter filters can be assigned to a manual time master.

You can override a manual time master by using a command line entered sneak time.

Copying Faders Using Attributes Only

When copying faders, you can use **{Attrs Only}** to copy over all of the fader properties except levels, effects, and labels.

- » **[Fader] [1] [Copy To] [Fader] [4] {Attrs Only} [Enter] [Enter]** - copies all of the fader properties from fader 1 and places it in fader 4. Levels, effects, and labels are not copied when using the **{Attrs Only}** softkey.

Additional Topics

Outputs

ETC has changed our policy for output upgrades. Rather than incremental 1K, 2K, or 4K upgrades above base output, we will offer two levels only. The base console and an unlocked version.

Minimum/maximum capacity is now as follows:

- » **Eos Ti (with Display port)** - 4K base, 24K unlocked
- » **Eos Ti (with DVI)** - 4K base, 16K unlocked
- » **Gio (with Display port)** - 4K base, 24K unlocked
- » **Gio (with DVI)** - 4K base, 12K unlocked
- » **Gio @5** - 4K base, 24K unlocked
- » **Eos RPU3 (with Display port)** - 4k base, 24K unlocked
- » **Eos RPU3 (with DVI)** - 4k base, 12K unlocked
- » **Ion (Win 7)** - 1K base, 6K unlocked
- » **Ion (XP)** - 1K base, 3K unlocked
- » **Ion RPU (Win 7)** - 2K base, 6K unlocked
- » **Ion RPU (XP)** - 2K base, 3K unlocked
- » **ETCnomad** - 512 base, 6K unlocked
- » **ETCnomad Puck (4 USB)** - 512 base, 6K unlocked
- » **ETCnomad Puck (3 USB)** - 512 base, 2K unlocked

For any devices in the field, when you install version 2.6 software, you will see the following:

- » If you have an **ETCnomad 256** or **ETCnomad Puck 256**, you will now have 512 output.
- » If you have an **ETCnomad 1024 or higher**, you will now have 6,144 output.
- » If you have an **ETCnomad Puck (4 USB) 1024 or higher**, you will now have 6,144 output.
- » If you have an **ETCnomad Puck (3 USB) 1024 or higher**, you will now have 2048 output.
- » If you have a **Win 7 Ion 1536 or higher**, you will now have 6,144 output.
- » If you have a **Win XP Ion 1536 or higher**, you will now have 3,072 output.
- » If you have a **Gio or Gio @ 5 2K or 3K** - you will now have 4,096 output.
- » If you have a **Gio @5 5K or higher**, you will now have 24,576 output.
- » If you have a **Gio (Display port) 5K or higher**, you will now have 24,576 output.
- » If you have a **Gio (DVI) 5K or higher**, you will now have 12,228 output.
- » If you have an **Eos Ti (Display port) 5K or higher**, you will now have 24,576 output.
- » If you have an **Eos Ti (DVI) 5K or higher**, you will now have 12,228 output.
- » If you have an **Eos Classic 5K or higher**, you will now have 8,192 output.
- » If you have an **Eos Classic RPU 5K or higher**, you will now have 8,192 output.



Note: If you downgrade from version 2.6 to an earlier release, your previous output will be restored.

These output counts will be maintained from version 2.6 through the life of the product.

Patch Fixture Search

A virtual keyboard icon has been added to the Fixture Search display in Patch. Click the icon to open the virtual alphanumeric keyboard.



sACN Universes

Any sACN universes within the 1-63,999 standard range can now be used. 256 universes total can be used.

The address range equals 1 to 32,767,488, which is 63,999 times 512.

This is set in **ECU>Settings>Network>Output Protocols>Allowed Output Addresses**.

MIDI Over USB

Version 2.6 adds support for third party MIDI over USB devices. In the ECU, you will need to enable their use in **Settings>Local I/O>USB MIDI**.

MIDI over USB behaves like a built-in MIDI port. The Group ID in **Settings>Local I/O** needs to match the console's ACN MIDI Rx or Tx ID in **Setup> Show > Show Control**.

MIDI over USB is only available on Windows 7 consoles, ETCnomad Puck, and ETCnomad operating on PCs running Windows 7 or higher and on Macs running El Capitan (v10.11) or higher.

Facepanel Shortcuts

Overview

The following is a list of button pushes: single, maintained, or combined. It is highly recommended that you read and familiarize yourself with this list.

Displays

- » **[Data]** (maintained press) - toggles the display to show data living under referenced data. Keep **[Data]** depressed to page.
- » **[Data] + [Data]** - locks the display to the absolute data display.
- » **[Time]** (maintained press) - toggles the display to show discrete timing. Keep **[Time]** depressed to page.
- » **[About] + [Time]** - locks the display to discrete time display.
- » **[Data] + [Focus Encoder Page] / [Color Encoder Page] etc** - to expand/suppress categories on displays (Ion)
- » **[Data] + [Parameter Tiles]** - to suppress/display individual parameters from the display when not in summary view (Ion)
- » **[Params] + [Focus] / [Color] / [Beam]** - to expand/suppress categories on displays (Ti/Eos/Gio/Gio@5)
- » **[Params] + Parameter Tiles** - to suppress/display individual parameters from the display when not in summary view (Ti/Eos/Gio/Gio@5)
- » **[Displays] + [Level Wheel]** - dim the Littlelites or backlighting/LCDs (as selected by the user).
- » **[Displays] [Displays]** - resets the CIA to the browser
- » **[About] + [Path]/[Color Path]** - toggles the display to show the color paths.
- » **[Shift] + [Tab]** - clear all tabs on the current monitor (but keep locked frames) (Does not clear tab 1 and 2)

- » **[Shift] + [Tab] [Tab]** - clear all tabs on all monitors (but keep locked frames) (Does not clear tab 1 and 2)
- » **[Shift] + [Tab] [Tab] [Tab]** - clear all tabs on all monitors (including locked frames) (does not clear tab 1 and 2)
- » **[About] + [Label]** (maintained press) - toggles the display between default view of referenced data and alternate view. Keep **[About]** depressed to page.
- » **[About] + [Label][Label]** - double press to lock reference labels on. Press **[About]** again to unlock.
- » **[Shift] + [Live/Blind]** - advances the displays to the next instance of live or blind
- » **[Live]** (when already in live) - resyncs the selected cue to the most recently activated cue
- » **[Blind]** (when already in blind) - resyncs the selected cue to the live selected cue (when blind cue has been changed or when preserve blind cue has been enabled).
- » **[Flexi] + [Time]** - to invoke flexi time view on displays
- » **[Format] + [Level Wheel]** - zooms the display in focus
- » **Left Mouse Button + Scroll** - zooms the display in focus on a PC
- » **Scroll with two fingers** - zooms the display in focus on a Mac
- » **[Tab] + [Up/Down Arrow]** - cycle workspaces
- » **[Tab] + [Left/Right Arrow]** - move displays
- » **[Tab] + [number]** - open or focus specific displays
- » **[About] + [Live]** - displays the DMX values.
- » **[About] + [Address]** - displays the addresses.
- » **[About] + [Data]** - displays non-manual levels.
- » **[About] + [Park]** - displays the parked levels.
- » **[About] + [Part]** - displays the cue part number for each parameter.
- » **[About] + [Cue]** - displays the source target type and number. For cues, the cue list and cue number that contained the last move will display.
- » **[About] + [Mark]** - displays the mark cue used by the channels.
- » **[About] + [Next]/[Last]** - displays the next cue with that the channels move in or the last cue with that the channels moved in.
- » **[About] + [Path]/{Color Path}** - displays the color paths.

Facepanel

- » **[Shift] + [Escape]** - to lock and unlock face panel
- » **Encoder Paging Keys + [Number]** - pages to the desired encoder control page
- » **[Escape] + Encoder Paging Keys** - locks the encoders. Press any encoder page button to unlock.
- » **[Flexi] + Encoder Paging Key** - to invoke flexi encoder states
- » **[Fader Controls] + [Bump Button]** - select a fader page on wings
- » **[Fader Page] + Rate Wheel** - rolls the selected fader page (Ti/Eos/Gio/Gio@5)
- » **[Fader Page] + [number]** - select a fader page on integral faders (Ti/Eos/Gio/Gio@5)
- » **[Fader Page]** - increments the fader page by 10. (Ti/Eos/Gio/Gio@5)
- » **[Shift] + [Fader Page]** - decrements the fader page by 1 (Ti/Eos/Gio/Gio@5)
- » **[Off] + [Load]** - releases control of content, restoring to background and leave cue list with pending cue in tact
- » **[Release] + [Load]** - releases control of content, restoring to background, and resets cue list to top
- » **[Shift] + [Go] or [Shift] + [Back]** - cuts the pending cue or the previous cue
- » **[Shift] + [Load]** - to remove content from a fader

Operations

- » **[At] [Enter]** - removes move information from selected channel/parameters.
- » **[At] [At]** - set to Level (as defined in Setup).
- » **[Color] (Encoder page key) + Encoder Movement** - hold Color Point while adjusting parameters
- » **[Copy To] [Copy to]** - posts Move To on the command line.
- » **[Full] [Full]** - sets selected channels intensity to “full” and self terminates
- » **[Label] [Label]** - appended to a record target command, clears the current label, this includes show file labels
- » **[Recall From] [Recall From]** - posts Recall From Cue to the command line. If in a target list display, such as presets, it will post Recall From Current Target, such as Recall From Preset or Recall From Focus Palette.
- » **[Record] [Record]** - posts Record Only to the command line.
- » **[Select Active] [Select Active]** - Select Active minus submaster contributions
- » **[Shift] + [Select Active]** - posts Select Non-Sub Active
- » **[Select Last]** - repeats last selection, unterminated; does a loop of last five selections.
- » **[Shift] + [At]** - recalls last channel(s) and parameters without terminating; does a loop of last five commands
- » **[Shift] + [Enter]** - reselects the last command and leaves it unterminated; does a loop of last five commands
- » **[Shift] + [Block]** - posts Intensity Block to the command line
- » **[Shift] + [Clear]** - clears the command line
- » **[Shift] + [Delay]** - posts follow
- » **[Shift] + Encoder Paging Key** - posts the category to the command line. For beam subcategories, press Image, Form or Shutter twice to post Beam.
- » **[Shift] + Encoder Movement** - accesses fine mode
- » **[Shift] + Encoder Toggle** - posts the parameter to the command line
- » **[Shift] + Gel Tile** - cycles through three modes of Brightness
- » **[Shift] + [Full]** or **[Shift] + [Out]** - flash On or Flash Out
- » **[Shift] + [+]** or **[Shift] + [-]** - same as +% or -%
- » **[Shift] + [Highlight]** - appends highlight to the current channel selection.
- » **[Shift] + [Parameter]** - from the encoder controls, posts the parameter to the command line.
- » **[Shift] + [Select Last]** - posts additional channel selection options to the softkeys
- » **[Shift] + [Sneak]** - makes manual data unmanual.
- » **[Shift] + [Update]** - shortcut to Save
- » **[Shift] + restore manual channel faders** - reset faders to zero without asserting control.
- » **[Shift] + [Direct Select]** - posts DS to the command line without terminating.
- » **[Shift] + [Label]** - adds a note to a currently selected cue
- » **[Shift] + [Int Palette]** - puts Preset on the command line. (Element only)
- » **[Sneak] [Sneak]** - releases NPs of selected channels and self terminates
- » **[Timing Disable] + [Go]** or **+ [Back]** - cuts the next cue or cuts the last cue
- » **[Thru] [Thru]** - **[Thru]** command accesses only channels displayed in the current flexi-state (unless the range specified is NOT in the current display). **[Thru] [Thru]** selects the range regardless of the flexi mode.
- » **[Trace] [Trace]** - forces a previously inactive light to track its new intensity setting backwards
- » **[Undo]** - clears an unterminated command line. Otherwise opens undo controls
- » **[Update] + [Sub Bump]** - to update a specific submaster

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- » **[n] [At] [/] [/] [m] [Enter]** - sets direct DMX value (m) for channel (n).
- » **[Shift] + [Delay] [Delay]** - posts hang to the command line

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Fader Configuration

Changes in this section impact Fader Configuration.

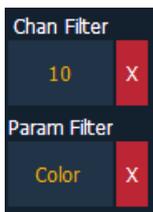
Unmap Faders

When deleting a submaster, you can choose to unmap it from the faders by using the **{Unmap Faders}** softkey. If the softkey is not used, any faders mapped to that submaster will remain mapped.

- » **[Delete] [Sub] [8] {Unmap Faders} [Enter]** - submaster 8 is deleted and any faders mapped to submaster 8 are unmapped.

Clear Button Added to Channel and Parameter Filters

Clear buttons have been added to the Channel and Parameter Filter areas. Press the red **[X]** to clear the channel or parameter filters listed.



Working with Cue Lists

Changes in this section impact the Cue Playback chapter.

Go To Cue Complete

Double pressing **[Go To Cue]** will post **Go To Cue Complete** to the command line. You can then select the appropriate cue number and level of completion.

Manual Control

Changes in this section impact the Advanced Manual Control chapter.

Change to Copy To and Recall From

Previously when using **[Copy To]** or **[Recall From]**, the commands for **{DMX}** and **{Make Abs}** had to be used at the end of the command line. While that syntax is still valid, you can also use **{DMX}** and **{Make Abs}** directly after **[Copy To]** and **[Recall From]**.

- » **[1] [Copy To] {DMX} [2] [Enter]**
- » **[1] [Recall From] {Make Abs} [2] [Enter]**



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System Basics

Changes in this section impact the System Basics chapter.

Labels for Linked Cues

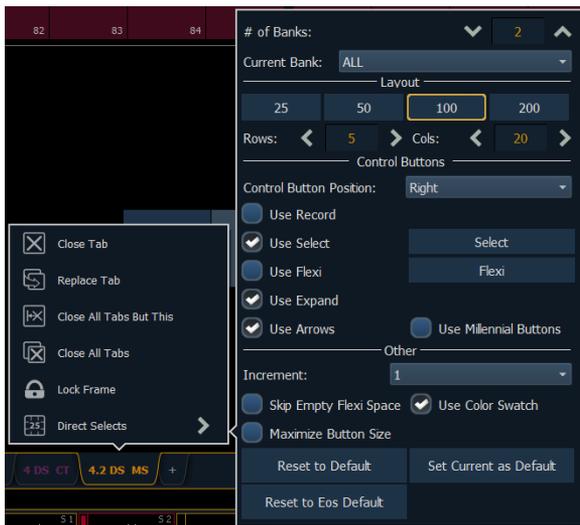
If a linked cue has a label, the label will be displayed in the link cue indicator in the Playback Status Display.

Direct Selects

The Direct Selects display has been changed for version 2.5. Classic and x25 modes have been combined. To access the configuration menu, right click or tap on the direct select's tab to see the configuration menu.

A new direct selects type has been added. See [Custom Direct Selects on page 2](#) for more information.

Direct Selects Configuration Menu



The following options are available:

- » **# of Banks** - sets the number of direct select banks that will display.
- » **Current Bank** - selects whether the menu options will affect all of the direct select banks or just a selected one.

Layout

- » **25, 50, 100, 200** - allows you to select the number of buttons that will display per bank.
- » **Rows** - allows you to select the number of rows in the banks.
- » **Columns** - allows you to select the number of columns in the banks.

Control Buttons

- » **Control Button Position** - allows you to set if the control buttons will display on the left side or the right side of the banks.
- » **Use Record** - displays the **{Record}** button.



- » **Use Select** - displays the **{Select}** button.
- » **Use Flexi** - displays the **{Flexi}** button.
- » **Use Expand** - displays the **{Expand}** button.
- » **Use Arrows** - displays the page up and down arrows.
- » **Use Millennial Buttons** - displays the century and millennial buttons that were used with Classic mode. These buttons allow you to jump to pages in the hundreds and thousands.

Other

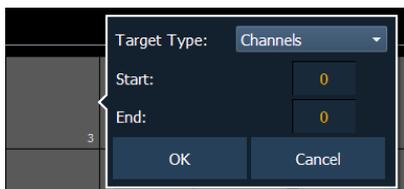
- » **Increment** - allows you to select if the direct select buttons will display as **1** (whole numbers), **.1** (tens), **.01** (hundreds).
- » **Skip Empty Flexi Space** - will display a vertical bar instead of empty space between a range of buttons when in Flexi mode.
- » **Use Color Swatch** - displays a triangular color swatch in the lower left corner of a color palette direct select.
- » **Maximize Button Size** - sets the size of the direct select buttons to fill the available space. This is similar to Fit to Screen in previous versions of software.
- » **Reset to Default** - will restore the settings to the default state. If no default state has been set, the Eos default settings will be used.
- » **Set Current as Default** - allows you to set the current settings to be used as a default state.
- » **Reset to Eos Default** - restores the settings to Eos defaults.

Custom Direct Selects

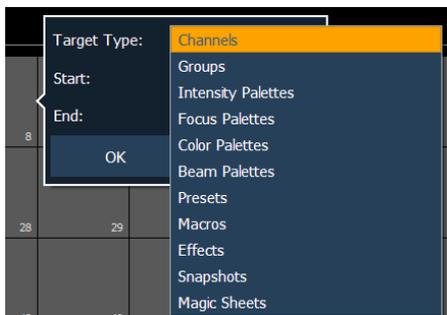
{Custom} has been added as a direct select type. **{Custom}** allows you to select multiple targets to display in the same bank of direct selects.

Assigning Targets

After selecting **{Custom}** as the direct select type, the direct selects will first display as being empty. To assign a target to a direct select or multiple direct selects, you can either tap on a direct select to open the configuration window, or you can use the command line.



From the configuration window, you can select the target type, and the starting and ending target numbers, which allows you to assign a range of targets.



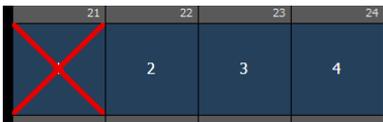
From the command line, you can select a range of targets that you want to assign, such as **[Presets] [1] [Thru] [5] [Enter]**. Then double click on a direct select to assign the selection.



Note: To assign a range of channels to the direct selects, you will need to use the configuration window. From the command line, you can only assign one channel at a time.

Clearing Direct Selects

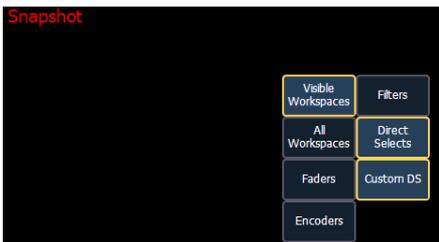
You can clear a custom direct select by using the **[Escape]** key. Hold down the **[Escape]** key and then press the direct select that you want to clear. To clear a range of direct selects, hold down the **[Escape]** key and press the first direct select in the range until a red X appears on it. With **[Escape]** still held down, press the last direct select of the range.



Custom DS Added to Snapshots

A **{Custom DS}** button has been added to the Snapshots List. When **{Custom DS}** is enabled, a snapshot will recall the targets that each of the custom direct select buttons are mapped to, unless the snapshot does not have custom direct select button mapping.

When **{Visible Workspaces}** is enabled, **{Direct Selects}** and **{Custom DS}** are enabled by default.



Fader Configuration

Changes in this section impact Fader Configuration.

Channel and Parameter Filters on Faders

Channel and Parameter Filters can be used to allow only specified data to be played back. These are playback filters, and do not impact how data is recorded.

Channel and Parameter Filters can be associated with the following targets for playback:

- » Cue lists
- » Submasters
- » Presets
- » Palettes



Note: For presets and palettes, channel and parameter filters can only be assigned in the fader configuration display (Tab 36) or in the fader list (Tab 35).

For cue lists and submasters, channel and parameter filters can be set in the following areas:

- » Cue List Index
- » Submaster List
- » Fader configuration display (Tab 36)

- » Fader list (Tab 35)
- » In Live using the **{Properties}** softkey

Tap or click on **{Chan Filter}** to assign channels or groups. Tap or click on **{Param Filter}** to open a list of available parameters that you can filter.



Note: Filters will travel with their assigned cue lists and submasters wherever they are mapped.

When a filter has been applied, an indicator will display in the fader ribbon. C will display for channel filter, and F is for parameter filter.



Temporary Fader Mapping

Presets and palettes can be used to create a temporary list of content that can be played back on a fader.



Note: This list is not recorded. If the fader is unloaded, the list cannot be recalled.

To create a list, press the **[Load]** button of an unmapped fader. You can then select presets or palettes to add to your list either by the command line or from the direct selects.

- » **[Load] {DS 1} {DS 2} {DS 2} [Enter]**
- » **{Fader} [1][0] [Preset] [1] [Preset] [2] [Preset] [3] [Enter]**

Once mapped, the fader will default to Master Only mode. See [Master Only on page 4](#) for more information.

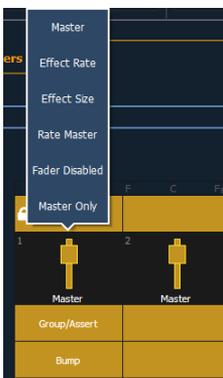
The list will use the timing assigned to the fader.

A fader with temporary mapping will have the cue list options for Back From First and Go From Last. These are Cue List Properties, please see the 2.4.0 Supplement for more information.

The list of targets will display in the Fader Configuration List (Tab 36), in the Fader List (Tab 35), and in the Fader Ribbon.

Master Only

Master Only has been added as a fader option that can be assigned in the fader configuration display (Tab 36) or in the fader list (Tab 35) for submasters, presets, and palette faders. Submasters can also be configured in the Submaster List (Tab 15).



Master Only faders are used to set a level for content to fade to. The slider can be used to live adjust levels when the fader has been activated via the bump button.

Master Only faders default to Full.

To set the fader level from the command line, use **[Fader] [n] [At] [level] [Enter]**.



Note: If content is set to proportional, Master Only fades all content to the setting of the fader when bumped. If set to I-Master, the fader masters the intensity, but non-intensity goes to the end state in time when the content is triggered.

Solo

[Solo] has been added as a fader playback button option that can be assigned in the fader configuration display (Tab 36) or in the fader list (Tab 35).

[Solo] can be associated with the following targets:

- » Cue lists
- » Submasters (only additive and effect submasters)
- » Presets
- » Palettes



Note: For presets and palettes, solo can only be assigned in the fader configuration display (Tab 36) or in the fader list (Tab 35).

When a **[Solo]** button is held down, it will suppress any intensity output except that provided by the associated content.



Note: Solo is a temporary condition. Solo is removed as soon as the **[Solo]** button is released.



Note: Shielded and Parked outputs are not affected by **[Solo]**.

Exclusions

Exclusions can be applied to faders via the Fader Configuration (Tab 36), the Cue List Index, or the Submaster List.

Those exclusions include:

- » **Exclude From Record** - output is not recorded into any other record target.
- » **Exclude From Grandmaster** - content cannot be mastered by a grandmaster.
- » **Exclude From Inhibitive Sub** - content cannot be mastered by an inhibitive submaster
- » **Exclude From Solo** - content will ignore solo. See [Solo on page 5](#) for more information.

Setup

Changes in this section impact the Setup chapter.

Show Reference Labels

{Show Reference Labels} has returned to **Setup > Desk Settings > Displays**. When enabled, referenced record targets (such as presets or palettes) with labels will have their labels displayed rather than their target type and number. This is disabled by default.

{**Show Reference Labels**}

 is a global setting that will affect all displays. For some displays such as live and blind, {**Show Reference Labels**} can be enabled at the individual tab level by accessing the tab's configuration menu. This will override the setting in Setup.

Manual Control

Changes in this section impact the Basic Manual Control or the Advanced Manual Control chapter.

Encoder Shutter Controls

New shutter controls have been added to the shutter encoder display.

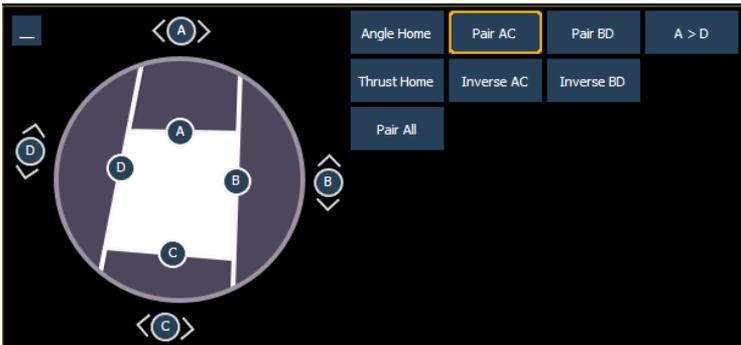
Note: For Ion, ETCnomad, RPU, and RVI, the encoder display can be accessed by using **CTRL + ALT + ** on an alphanumeric keyboard. **ALT + ,** can be used to change encoder pages.

Shutter Graphic

Tap or click on the shutter graphic to open up the shutter controls window.



The shutter controls window allows you to move individual shutters by holding down one of the letters inside of the shutter graphic. To rotate the shutters, use the **<A>**, ****, **<C>**, or **<D>** buttons around the outside of the shutter graphic.



Encoder Buttons

Note: The encoder buttons are used with the encoders for shutter control. These buttons do not work with the shutter graphic control.

The following buttons are available for shutter control:

- » **Angle Home**- sets the angle of all of the shutters to their home position.
- » **Thrust Home**- sets the thrust (how far in or out of the beam the shutter travels) of all of the shutters to their home position.
- » **Pair AC** - pairs the A and C shutters together so they move together.
- » **Pair BD**- pairs the B and D shutters together so they move together.
- » **Pair All**- pairs all of the shutters so they move together.

- » **Inverse AC** - pairs the A and C shutters so they move in the opposite directions from each other.
- » **Inverse BD** - pairs the B and D shutters so they move in the opposite directions from each other.
- » **A>D** - sets the encoders to use the custom encoder pages for the shutters. Thrust for all of the shutters is on one page, Angle for all is on another page.

Release

Release has been added as an extension of the **{Make Null}** command in Blind. When Release is used, it behaves like Make Null, but it also releases the channel and parameter data to its background state, if one is available, or fades out the intensity instead.

Release can be used to mask instructions in a cue after it has already been stored. The data is not removed from the cue.

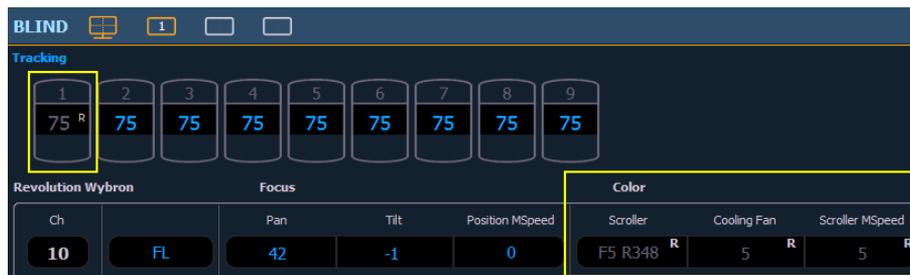
Release is applied in Blind by using the **{Release}** softkey or by using the **[Release]** hardkey if available on your console.

- » **[Cue] [3] [Enter] [2] {Release} [Enter]** - releases all data for channel 2 in cue 3.
- » **[Cue] [2] [Enter] [3] {Color} [Release]** - releases the color data for channel 3 in cue 2.

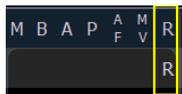


Note: Release tracks forward through a cuelist until the Release command is removed or a move instruction happens.

When release has been applied, the released content will display in gray with a R in Blind.



A Release flag has been added to the Playback Status Display.



[Thru] [Thru] in Blind

While in any of the Blind displays, you can use the **[Thru] [Thru]** command to create targets and switch to their appropriate Blind mode.

For example,

- » In Blind, **[Preset] [1] [Thru] [Thru] [5] [Enter]** will create presets 1-5 and put you in the Blind preset mode.

Fanning Multiple Targets in Blind

By using **[Thru] [Thru]** in Blind, you can create multiple targets, such as presets. You can then fan channel levels across those targets.

For example,

In Blind, **[Preset] [1] [Thru] [Thru] [5] [Enter]** will create presets 1-5 and put you in the Blind preset mode. You can then use the following syntax to fan channel levels across those five presets. **[1] [Thru] [1][0]**

[At] [5] [0] [Thru] [1] [0] [0] [Enter] will fan the levels of channels 1-10 from 50 to 100 across the newly created five presets.

- » Preset 1 will have channels 1-10 at 50%.
- » Preset 2 will have the channels at 63%.
- » Preset 3 will be at 75%.
- » Preset 4 will be at 88%.
- » Preset 5 will have the channels at full.

Working with Cue Lists

Changes in this section impact the Working with a Single Cue List, Working With Multiple Cuelists, or Cue Playback chapter.

Record Via Load

You can record a cue 1 to the next unused cuelist by using the Load button for an unmapped fader. **[Record] [Cue] [Load]** will create a cue 1 in a new cuelist and map that cuelist to the fader.

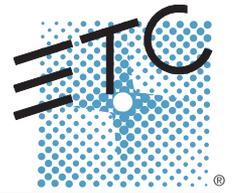
Additional Topics

RPU Sync LED

The Sync LED on a RPU will now blink if there is a network issue.

[Shift] + [Custom]

On Eos Ti, pressing **[Shift] + [Custom]** will put Focus on the command line. On Eos, pressing **[Shift] + [Custom]** can still be used to put Intensity onto the command line.



Addition to Facepanel Shortcuts

[Escape] + [Load]

[Escape] + [Load] can be used to unmap all instances of the target (cue list, submaster, palette, or preset) on a selected fader.

Changes to Storing and Using Macros

Number of Macros

You can now create up to 99,999 macros. Macros can be recorded with a number identifier from 1 to 99,999.

Additions to Show Control



Note: Other show control methods can be used to trigger cues, submasters, and macros. For more information, please see the Eos Family Show Control User Manual, which is available for download at www.etconnect.com.

sACN Input

sACN (streaming ACN) is a protocol (ANSI E1.31-2009) that allows for the transfer of DMX packets over a network using the ACN protocol. sACN allows for there to be multiple sources. These sources (configured at the source device) can each be given a priority. The valid priority range is 1 (lowest) to 200 (highest). If sources have the same priority, sACN will use Highest-Takes-Precedence (HTP).

sACN Input can be used to trigger the following actions:

- » **Cue** - fires a cue
- » **Submaster** - bumps a submaster, turns on or off a submaster, or sets a submaster fader action, which maps the input percentage to the submaster's percentage.
- » **Macros** - fires a macro

With the exception of a submaster fader action, sACN triggers the action when the level rises above 50% (DMX 127). It does not fire again when the level drops below 50% (DMX 127). It only fires again when the level drops below 50% and then rises above 50%.



Note: sACN input only listens to a single sACN address. It is 8bit only. To listen to a 16bit input source, you will need to have the console listen to the high/coarse part of the 16-bit pair of addresses.

Using sACN Input

Open the show control display.

- » **[Tab] + [1] [1]**

Create a new event list.



» **<Event> [1][/] [Enter]**

Define the type of input.

» **<Event> [1][/] {Type} {Network} [Enter]**

Create a new event.

» **[1] [Enter]**

Assign the sACN address using the universe / address format.

» **{sACN} [4] [/] [1] [Enter]**

Add the action to execute. Actions can be either a cue, submaster, or a macro.

» **{Action} {Cue} [1] [Enter]**

String Input

String Input, which includes Open Sound Control (OSC) and ASCII / UDP strings, can be used to trigger the following actions:

» **Cue** - fires a cue

» **Submaster** - bumps a submaster, turns on or off a submaster, or sets a submaster fader percentage by using UDP. Fader levels cannot be set using OSC.

» **Macros** - fires a macro

Using String Input

Open the show control display.

» **[Tab] + [1] [1]**

Create a new event list.

» **<Event> [1][/] [Enter]**

Define the type of input.

» **<Event> [1][/] {Type} {Network} [Enter]**

Create a new event.

» **[1] [Enter]**

Select Input String and type the appropriate UDP or OSC command

» **{Input String}**

UDP

Type in the string you want the console to listen to.

- » The sending device needs to add "SC" (case-sensitive) to the beginning of the string in order for it to be correctly processed.
- » The string needs to be terminated with a carriage return (hex 0D), \r, or #. For example, type **Hello** in the Input String field. On your UDP sending device, have it send **SC Hello#**.
- » To set the submaster fader percentage using UDP, you need to include a number (0-100) after the string. For example, **blue 50#**.

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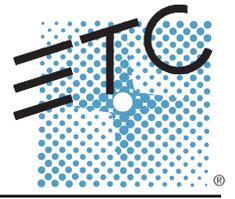
OSC

Type in the command you want the console to listen to.

- » The sending device needs to start with **/eos/sc/** in order for the console to listen to it. For example, type **Hello** in the Input String field. On your OSC sending device, have it send **/eos/sc/Hello**.

Then add the action to execute. Actions can be either a cue, submaster, or a macro.

- » **{Action} {Cue} [1] [Enter]**



System Basics

Changes in this section impact the System Basics chapter.

Configuration Menus

For displays that had configuration options in Setup, such as Live/ Blind and Playback Status, most of those options are now available from the display's tab.

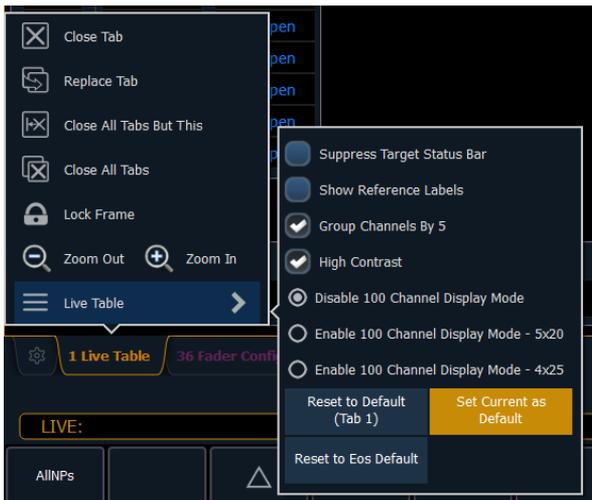
For displays that used a gear menu, such as Color Tools and the x25 DS, those options are now available from the display's tab.

Right click or tap on the display's tab to see their configuration menus.

Live and Blind Configuration Menu

The Live/Blind displays have a new configuration menu. The configuration settings previously found in the Setup are now available by double clicking and then clicking on (in this example) live table, or by selecting the gear icon, which is located by the tabs, and then pressing (in this example) live table.

Note: Each instance of Live/Blind may be configured individually.



The following options are available:

- » **Suppress Target Status Bar** - Hides the target status bar from the display. The target status bar displays at the bottom of the Live/ Blind displays.



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- » **Show Reference Labels** - When enabled, referenced record targets (such as presets or palettes) with labels will have their labels displayed rather than their target type and number. The option was previously found in Setup.



Note: [Shift] & [Label] can be used to temporarily toggle between views.

- » **Group Channels By 5** - When enabled, five channels are grouped together with space separating each group of five. This setting is enabled by default.
- » **High Contrast** - When enabled, high contrast brightens the magenta used to show tracked values. This setting is enabled by default.
- » **Disable 100 Channel Display Mode** - By default, 100 channels are displayed at a time in the live summary view.
- » **Enable 100 Channel Display Mode - 5x20** - This is a variation of the 100 Channel Display Mode, which displays 5 rows of 20 channels.
- » **Enable 100 Channel Display Mode - 4x25** - This is a variation of the 100 Channel Display Mode, which displays 4 rows of 25 channels.

Default

You can save your settings as a default state for Live/Blind. The default is identified with parentheses.

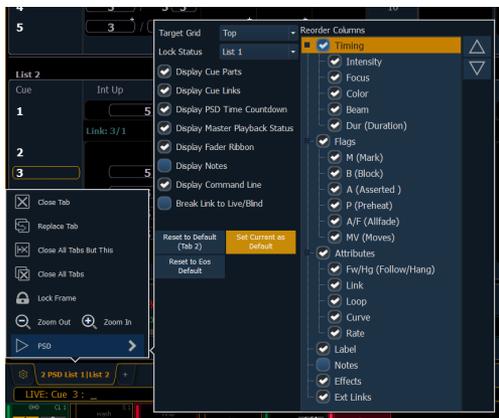
- » **Reset to Default** - Will restore the settings to the default state. Live/ blind tabs will normally default to the settings for Tab 1.0, if no other tab has been assigned as default.
- » **Set Current as Default** - Allows you to set a Live/ Blind tab other than 1.0 as the default. The default tab will be shown in parentheses , for example (Tab 1).



- » **Reset to Eos Default** - Restores the settings to Eos defaults.

Playback Status Display Configuration

Playback Status Display (PSD) has a new configuration menu, which is accessed by double clicking and then clicking on the PSD tab, or by selecting the gear icon, which is located by the tabs, and then pressing PSD.



The following options are available in the PSD Configuration Menu:

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- » **Target Grid** - this option is only available when the PSD is split, and is used along with the Lock Status option. Target Grid allows you to select either the top or bottom display. Press **[Format]** to split the PSD.
- » **Lock Status** - allows you to lock the PSD to a certain cue list. When the PSD is split, you will use Target Grid to first select top or bottom of the display, and then you can use Lock Status to select the cue list.



Note: Phantom cue lists will display but cannot be locked to. See [Cue List Properties \(on page 7\)](#) to learn more about phantom cue lists.

- » **Display Cue Parts** - displays the individual parts of a part cue. When not enabled, the number of parts for that cue will display as a superscript number beside the cue's number.
- » **Display Cue Links** - displays the [Link Cues \(on the next page\)](#) information.
- » **Display PSD Time Countdown** - displays the cue category times countdown in the PSD as a cue is fading.
- » **Display Master Playback Status** - displays the current cue's status information.



- » **Display Fader Ribbon** - displays the fader ribbon, which shows the current fader page under the Master Playback Status.
- » **Display Notes** - displays the [Cue Notes \(on page 21\)](#) in a horizontal bar at the bottom of the PSD.
- » **Display Command Line** - displays an optional command line on the PSD.
- » **Break Link to Live/Blind** - When selecting the Live/Blind display, the PSD will also come into view if it is currently hidden. This option allows you to break the link between the PSD and the Live/Blind displays so that the PSD will no longer come into view when selecting Live/Blind.

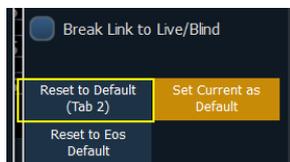
Reorder Columns

Reorder columns allows you choose what data displays in the PSD and what order it displays in. By default, all columns except notes will be displayed. The arrow keys on the right can be used to move columns around. Columns are moved in groups. To select a column header to move, click or tap the name. The check boxes suppress or enable. When an item is enabled to display, a check mark will be in the corresponding box.

Default

You can save your settings as a default state for the PSD. The default PSD is identified with parentheses.

- » **Reset to Default** - returns the settings to the default state that you created.
- » **Set Current as Default** - uses the current settings to create a default state. The default tab will be shown in parentheses, for example (Tab 2).



- » **Reset to Eos Default** - returns all settings to the Eos defaults.

Paging the Playback Status Display

You can page the Playback Status Display (PSD) now if focus is on a Live/Blind tab.

[Shift] + [Page ▲] or **[Shift] + [Page ▼]** will page the display up or down.



Note: This action will page the PSD that is showing the currently selected cue list. If there is no PSD visible showing that cue list, nothing will be paged.

Link Cues

Cues that link to other cues now display this information in a row under the cue in the Cue List Index and the Playback Status Display. This can be suppressed in the PSD configuration. See [Playback Status Display Configuration \(on page 2\)](#) for more information.



Additional Cue List Information

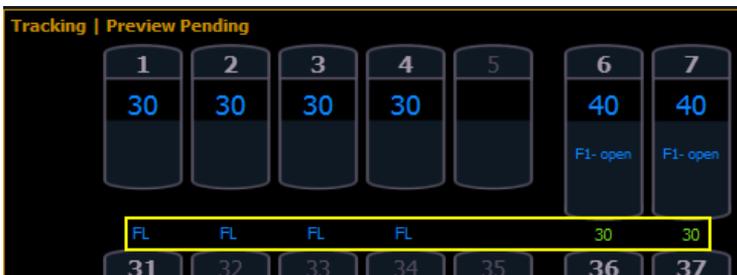
Additional information about cue lists has been added to the Playback Status Display (PSD). Previously this information was only available in the Cue List Index.

The following information will now display in the PSD as well as the Cue List Index:

- » Partitions on Cue Lists
- » Cue List Executes
- » OOS Sync

Preview Mode in Live

A **{Preview}** softkey has been added to Live Summary. **{Preview}** is not available in Live Table. **{Preview}** allows you to display the intensity values for another cue under the current values in the Live Summary tab. An indicator of what Preview mode you are in will display in the upper left hand corner of the Live Summary display.



In **{Preview}** mode, the following softkeys are available:

- » **{Previous}** - previews the last cue run from the selected cue list.
- » **{Pending}** - previews the pending cue from the selected cue list.

The following examples show other functions that are available in Preview:

- » **{Preview}[Next]** will allow you to preview the cue higher than the one currently selected. If there is no cue already selected in preview mode, **[Next]** will behave the same as **{Pending}**.
- » **{Preview}[Last]** will allow you to preview the cue lower than the one currently selected. If there is no cue already selected in preview mode, **[Last]** will behave the same as **{Previous}**.
- » **{Preview}<Cue>[5]** will preview cue 5.

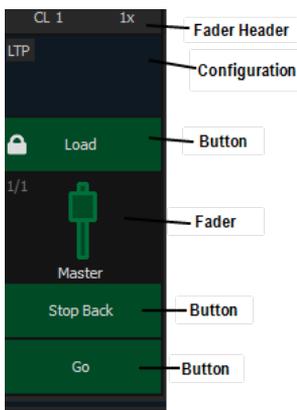
Fader Configuration

Fader configuration has had some major changes with version 2.4. In addition to putting cue lists and submasters on faders, it is also possible to map presets and IFCB palettes to faders.

Faders are no longer configured in Setup. The fader configuration display is found on Tab 36. The [Fader List \(on page 17\)](#), which shows all of the faders and their assignments, can be found in Tab 35.

At the top of the fader configuration display, you can select the fader page, which has increased from 30 pages to 100 pages of 10 faders each page. You can configure the master fader pair at the top of the display. See [Master Fader Configuration \(on page 7\)](#) for more information.

The fader configuration display shows a virtual mockup of each fader and its buttons. The various parts of the virtual fader can be clicked or tapped to open configuration options.



Each fader is color coded based on its assigned target type. Grandmasters and inhibitive submasters are in red, additive submasters are yellow, playback faders display in green, and presets and palettes are orange.



Fader Configuration Window

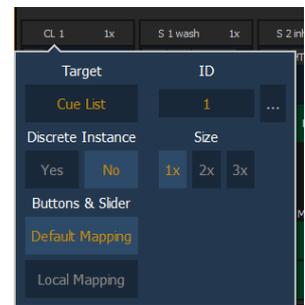
Click on the fader header to open the fader configuration window.

Target

This setting allows you to map a cue list, submaster, intensity, focus, color, or beam palette, preset, or grandmaster to a fader.

ID

This sets the number of the target assigned to the fader, such as Cue List 2 or Submaster 5. For a list of available Target IDs, click or press the {...} button beside ID.





Note: Content can also be loaded to faders from Live, using the command line and load, just like previous software releases.

Discrete Instance

This setting defaults to Yes and applies to cue lists. When a fader is discrete, it will track other faders that are running the same cue list, BUT if a fader that it is tracking manually changes to a different cue list, a discrete enabled fader will not change its content. When set to No (or disabled), once a fader is in sync with another fader running the same cue list, it will stay in sync when content is changed. Discrete disabled is noted in the fader ribbon with a link icon.

Size

A fader can be mapped so its content takes up 1, 2, or 3 faders. 1x will take up 1 fader, 2x will use 2 faders, and 3x will use three.



Note: If a fader is mapped to 1x, the top button will be locked as a load button. When mapped to 2x or 3x, the top left button will be locked as a load button.

Buttons & Slider

When set to Default Mapping, the button and fader configuration is drawn initially from the cue list or submaster list properties for that content. If changes are made to that mapping in Tab 36, it filters BACK to the cue or submaster list and changes any other instances where that content is mapped. If set to Local, any changes made in Tab 36 impact only that instance of the content. See [Cue List Properties \(on the facing page\)](#) and [Submaster Properties \(on page 10\)](#) for more information on default mapping.

Additional Configuration

Clicking on the configuration box will open additional configuration options that are dependent on the target type assigned to the fader.

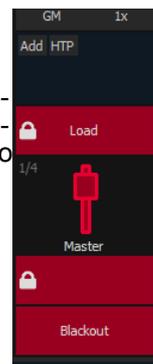
For detailed information on these various options, please see the following topics:

- » [Grandmaster Configuration \(below\)](#)
- » [Cue List Properties \(on the facing page\)](#)
- » [Submaster Properties \(on page 10\)](#)
- » [Presets and Palettes Properties \(on page 14\)](#)

Grandmaster Configuration

When a fader is configured as a grandmaster, you can set the fader itself as a master or disable it. Fader size is set to 1x, and can not be changed.

The first button is locked as a load button, and cannot be configured. The second button is disabled and cannot be configured. The third button can be configured as a blackout button or disabled. When configured as a blackout, both buttons must be pressed to set the grandmaster to blackout.



Master Fader Configuration

Click or tap Master Fader to open the master fader configuration window.

Target

This setting allows you to map a cue list to a fader.

ID

This sets the number of the target assigned to the fader, such as Cue List 2 . For a list of available Target IDs, click or press the {...} button beside ID.

Discrete Instance

This setting default to Yes and applies to cue lists. When a fader is discrete, it will track other faders that are running the same cue list, BUT if a fader that it is tracking manually changes to a different cue list, a discrete enabled fader will not change its content. When set to No (or disabled), once a fader is in sync with another fader running the same cue list, it will stay in sync when content is changed. Discrete disabled is noted in the fader ribbon with a link icon.

Size

Master fader is set to a size of 2 faders and cannot be changed.

Buttons & Slider

You can select to use default mapping for the fader, or you can use local mapping.



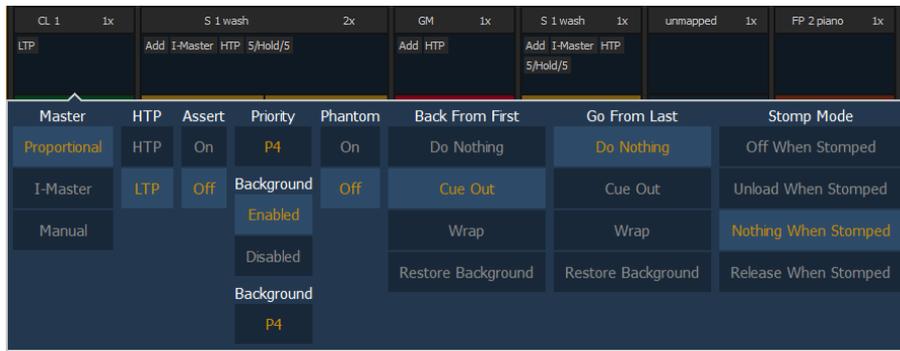
Note: When a user first joins a session, the master fader is unmapped. Once a cue list is established for that user, any other devices joining the user group will have the same cue list automatically mapped to their master. If a device changes its user ID, the cue list on the master will be remapped accordingly.

Additional configuration options are available. Please see [Cue List Properties \(below\)](#) for more information.

Cue List Properties

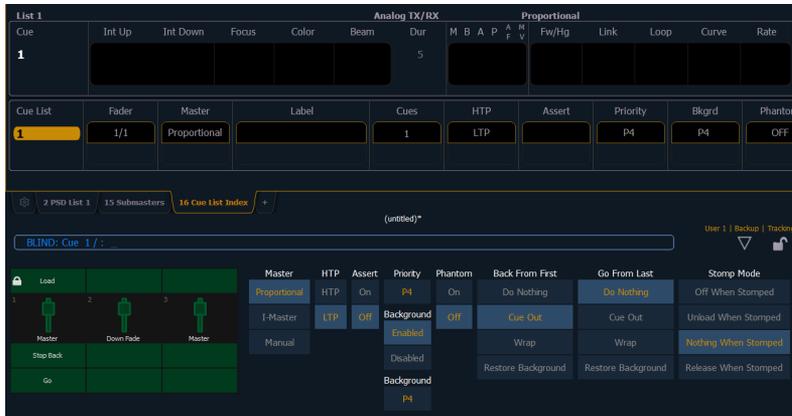
Click or tap the configuration box to access this properties display in the fader configuration display.

The following options are available when a fader is configured as a playback:



If a fader has been configured for default mapping (See [Fader Configuration \(on page 5\)](#) for more information), the fader will receive its configuration from the Cue List Index. Changes made to a cue list in the cue list index will be shared with any default mapping faders loaded with that cue list. If changes are made to a fader set to default mapping in the fader configuration display, those changes will also happen in the Cue

List Index. If set to Local, any changes made in the fader configuration display will impact only that instance of the content.



Master

A fader can be assigned as a Master. When it is a master, its behavior as a Proportional Master, Manual Master or Intensity Master (I-Master) is drawn from this setting.

- » Proportional faders, when the slider is set to zero prior to the execution of a cue, will withhold playback of intensity data until the fader is raised. Intensity data will then be played back proportionally according to the level of the fader. Once the fader reaches full, the cue is considered complete and the cue is released from the manual fader. If the fader is at any value other than zero when the cue is executed, intensity values will play back normally. If the slider is returned toward zero, intensity in the cue will fade to the previous level.
- » Intensity Masters will master the intensity level for cues during playback. Therefore, intensity masters set below 100% will proportionally limit playback of intensity data relative to the level that the fader is set. All non-intensity parameters are unaffected by the fader. Once the fader has reached full, control of intensity is retained. If the fader is moved toward zero, intensity will proportionally fade toward zero (not the previous state as per proportional faders).
- » In Manual Master mode, cues are triggered manually by faders without using the [Go] button. With a cue list on a fader set to manual master, a cue will fire in manual time when the fader is moved from 0% or from Full.

HTP

Intensity playback behavior can be set to HTP (highest takes precedence) or LTP (latest takes precedence). For cues, it defaults to LTP.

Assert

Assert can be turned on or off at the fader level. This property sets the entire cue list to be asserted on playback (even track instructions are replayed). Please see the Cue Playback chapter of your console's manual for more information.

Priority

The Independent setting for a cue list has been changed to Priority.

Priority is used to protect values from being affected by submasters or playback faders that have a lower priority level. They will, however, still be impacted by manual control, grandmaster, blackout, park instructions, or other playback faders and submasters at the same or higher priority.

There are 10 levels of Priority that cue lists can have. 1 is the lowest level and 10 is the highest. The default priority level is 4.

Background

Background can be enabled or disabled at the fader level. When enabled, the content of the cue list will act as a background or previous state for other cues and submasters.

Background Priority

Background can have a priority assigned to it.

In previous software releases, when content was released, it always returned to the last fader that owned it. Background priority releases to the highest priority content that previously had ownership, provided that content has not be turned off or released.

There are 10 levels of Priority. 1 is the lowest level and 10 is the highest. The default priority level is 4.

Phantom

When a cue list is set to Phantom, pressing GO will not change the selected cue on the command line, or an unlocked playback status display.

Back From First

Back From First controls the behavior that happens when you press the back button while in the first cue.

The following are Back From First options:

- » **Do Nothing** - keeps the first cue active.
- » **Cue Out**(Default Setting) - only fades out channels in that cue list. Other channels will remain. Intensity and non-intensity parameters will be homed. This setting uses the Back time for fading.
- » **Wrap** - puts the last cue in the list in pending.
- » **Restore Background** - any background cue, submaster, and effect levels are restored following background priority. Manual levels will not be restored. This setting uses the Release time.

Go From Last

Go From Last controls the behavior that happens when you press the Go button while in the last cue.

The following are Go From Last options:

- » **Do Nothing** (Default Setting) - keeps the last cue in the list active.
- » **Cue Out** - only fades out channels in that cue list. Other channels will remain. Intensity levels will go out. Non-intensity parameters will remain. This setting uses the Go to Cue timing for fading.
- » **Wrap** - puts the first cue into pending.
- » **Restore Background** - any background cue, submaster, and effect levels are restore following background priority. Manual levels will not be restored. This setting uses the Release time. The pending cue will be set to the first cue in the list. If there is no background state, the non-intensity parameters will not fade.

Stomp Mode

Stomp refers to when all the content owned by a cue is now being controlled by other targets. The cue is being removed from the background , and once that happens, it would not be eligible to fade back. You can assign behavior that will happen when a cue is stomped.

The following are Stomp Mode options:

- » **Off When Stomped** - Puts the content into an off state, the same behavior encountered when pressing **[Off] + [Load]**.
- » **Unload When Stomped** - Unloads the fader.
- » **Nothing When Stomped** - Nothing happens.
- » **Release When Stomped** - Resets a cue list to the top of the list.

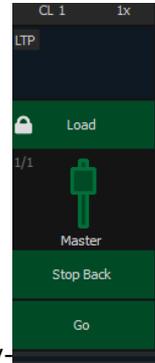
Fader and Button Configuration

Click or tap on the virtual buttons or fader to see a list of available configuration options.

Button Options

The following options are available for playback buttons:

- » **Go** - executes the cue currently in the pending file of the associated fader.
- » **Stop Back** - instantly stops all fader activity. Pressing twice will fade to the previous cue on that fader.
- » **Assert** - can be used to re-run the active cue on that fader, to regain control of all cue contents, to apply a newly set independent state to the associated fader, or make any changes in blind to an active cue on stage.
- » **Group Select** - selects the channels stored in the cue.
- » **Freeze** - halts all effect activity on the fader. Press Freeze again to resume effect activity.
- » **Off** - removes the content and if the fader is set to Master, the fader will remain where it currently is.
- » **Release** - removes the content and if the fader is set to Master, the fader will reset to 0.
- » **Stop Effect** - stops the running effects.
- » **Button Disabled** - no action is assigned to the button.



Fader Options

The following options are available for a playback fader:

- » **Master** - fader will be a proportional master, a manual master, or an intensity master.
- » **Effect Rate** - fader centers to home. It controls the rate of any running effects (same behavior as using rate via the Effect Status Display). The adjusted setting from this control cannot be stored.
- » **Effect Size** - similar to Effect Rate but for effect size.
- » **Rate Master** - homes to center. It adjusts the cue rate, just like rate and load.
- » **Down Fade** - see default behavior of master fader.
- » **Fader Disabled** - no action is assigned to the fader.

Submaster Properties

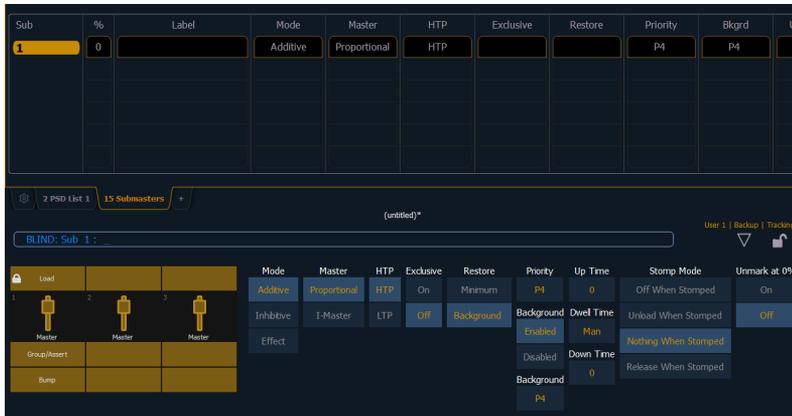
Click or tab the second row of the fader page to access this properties display. You can also access these properties from the submaster list.

The following options are available when a fader is configured as a submaster:



If a fader has been configured for default mapping (See [Fader Configuration \(on page 5\)](#) for more information), the fader will receive its configuration from the Submaster List. Changes made to a submaster in the submaster list will be shared with any default mapping faders loaded with that submaster. If changes are made to a fader set to default mapping in the fader configuration display, those changes will also happen in

the Submaster List. If set to Local, any changes made in the fader configuration display will impact only that instance of the content.



Mode

You may define your submaster as additive (contributes to the live output), inhibitive (limits live output) or an effect submaster. Eos defaults to submasters being additive.

Master

A fader can be assigned as a Master. When it is a master, its behavior as a Proportional Master or Intensity Master (I-Master) is drawn from this setting.

Please see the **Storing and Using Submasters** chapter of your console's manual for more information on Proportional and Intensity Masters.

HTP

Intensity playback behavior can be set to HTP (highest takes precedence) or LTP (latest takes precedence). Submasters default to HTP.

Exclusive

Submasters can be placed in exclusive mode. This prohibits storing the contribution of the submaster into any record targets.

Restore

Submasters can be placed into restore modes of minimum or background, which is the default. When a submaster is in the restore to background mode, the restore column of the submaster list display will be blank. When in minimum mode, 'Min' will display in the restore column.

The restore mode of background means that when the submaster is returned to zero, control will be restored to the background value, such as another submaster or a cue.

The restore mode of minimum means that when the submaster is faded down, control does not go to the previous background state but to the parameters' minimum value.

Priority

The independent setting for submasters has been changed to priority. There are 10 levels of priority for submasters. 1 is the lowest and 10 is the highest. Submasters can still be shielded, which means that their content is automatically made exclusive and can't be controlled by anything other than that submaster and park, including by manual control. Shielded has a higher priority than 10.

Background

Submasters can have their background states disabled. Background states are enabled by default. When enabled, the content of the submaster will act as a background or previous state for other cues and

submasters.

Background Priority

Background can have a priority assigned to it.

In previous software releases, when content was released, it always returned to the last fader that owned it. Background priority releases to the highest priority content that previously had ownership, provided that content has not be turned off or released.

There are 10 levels of background priority for submasters. 1 is the lowest and 10 is the highest.

Up Time

This is the time for the submaster to fade from its home position to its target position (0 to Full if additive, Full to 0 if inhibitive). The default time is 0.

Dwell Time

This is the time the submaster look will hold before starting the downfade. This can be set to a specified time, or to "Hold" or "Manual". "Hold" time maintains the submaster values until the bump is pressed a second time. "Manual" time applies the submaster values only as long as the bump is held. The default is "Manual".

Down Time

This is the time for the submaster to fade from its target position to its home position. The default time is 0.

Stomp Mode

Stomp happens when all the content owned by a submaster is now being controlled by other targets. The submaster is being removed from the background, and once that happens, it would not be eligible to fade back. You can assign behavior that will happen when a submaster is stomped.

The following are Stomp Mode options:

- » **Off When Stomped** - puts the content into an off state, the same behavior encountered when pressing **[Off] + [Load]**.
- » **Unload When Stomped** - unloads the fader.
- » **Nothing When Stomped** - no action happens to the submaster.
- » **Release When Stomped** - This function behaves the same as Off When Stomped.

Unmark at 0%

When this option is on, marked content controlled by the submaster will automatically be released when the fader reaches 0%. When the bump button is next pressed, the submaster will fire. If this option is off, you would need to first press the bump button to reset the submaster before pressing the bump again to fire it.



Note: This option is for submasters that are set to Intensity Master.

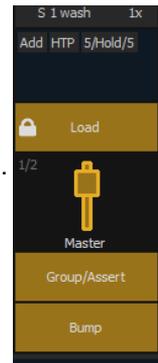
Fader and Button Configuration

Click or tap on the virtual buttons or fader to see a list of available configuration options.

Button Options

The following options are available for submaster buttons:

- » **Bump** - plays back the submaster at 100% of the recorded level. It will continue to do so until released, unless the submaster has a time assigned or the **{Hold}** property set.
- » **Group/ Assert** - selects all the channels associated with the submaster, if the submaster is inactive. If the submaster is active, the contents of the submaster will be asserted.
- » **Assert** - regains control of all of the channels associated with the submaster.
- » **Group Select** - selects the channels stored in the submaster. This is the same as **[Group] [Sub] [n]**.
- » **Freeze** - halts all effect activity on the fader.
- » **Off** - removes the content and if the fader is set to Master, the fader will remain where it currently is.
- » **Release** - removes the content and if the fader is set to Master, the fader will reset to 0.
- » **Stop Effect** - stops the running effects.
- » **Button Disabled** - no action is assigned to the button.



Fader Options

The following options are available for a submaster fader:

- » **Master** - fader will be a proportional master, a manual master, or an intensity master.
- » **Effect Rate** - fader centers to home. It controls the rate of any running effects (same behavior as using rate via the Effect Status Display). The adjusted setting from this control cannot be stored.
- » **Effect Size** - similar to Effect Rate but for effect size.
- » **Rate Master** - homes to center. It adjusts the cue rate, just like rate and load.
- » **Down Fade** - see default behavior of master fader.
- » **Fader Disabled** - no action is assigned to the fade

Execute List

The execute list for submasters can be used to trigger actions such as macros, snapshots, MIDI Raw, Serial Strings, and cues. This works similar to the External Links for cues.

There is an **{Execute}** softkey that is available after you press the **[Sub]** button in either Live, Blind, or the sub list display.

When you press **{Execute}**, the softkeys will change to **{String}**, **{Macro}**, **{Relay}**, **{On}**, **{Off}**, **{Snapshot}**, and **{MIDI Raw}**.

Triggering an Action

Pressing the bump button of a submaster will trigger any actions assigned to its execute list.

Adding a Trigger

- » **[Sub] [1] {Execute} {Macro} [2] [Enter]** - triggers macro 2 when submaster 1's bump button is pressed.

Removing a Trigger

- » **[Sub] [1] {Execute} {Macro} [Enter]** - removes the trigger from submaster 1's execute list.

Freeze and StopEffect on Submasters

Freeze

[Freeze] can be used to halt all effect activity on any active submaster. To activate a freeze for only a specific submaster, press [Freeze] & [Load].

There are two ways to remove the freeze command:

- » Press [Freeze] & [Load] again for the specific faders to unfreeze the activity.
- » Press [Assert] & [Load] or [Go] or [Stop/Back] for the specific faders to resume the activity.

StopEffect

The [Stop Effect] button can be used to stop all effects from operating on any or all faders, or it may be used with the control keypad to stop a specific effect.

- » To stop all effects on a fader, press [Stop Effect] & [Load] of the associated fader.
- » To stop a specific effect regardless of the fader it is operating on, press [Effect] [2] [StopEffect] [Enter].

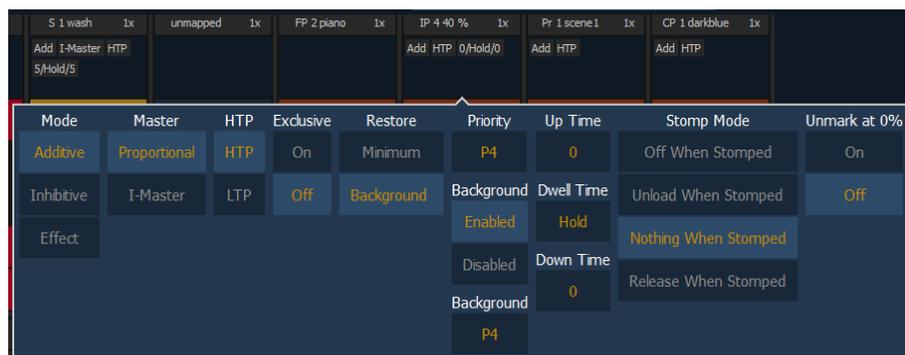
When an effect is stopped, all impact of the effect is removed and the stage output is as though the effect had never been activated.

Presets and Palettes Properties

Presets and Palettes can be mapped to faders.

Click or tab the second row of the fader page to access this properties display.

The following options are available when a fader is configured as a preset or palette fader:



Mode

You may define your fader as additive (contributes to the live output), inhibitive (limits live output) or an effect fader (presets only).

Master

A fader can be assigned as a Master. When it is a master, its behavior as a Proportional Master or Intensity Master (I-Master) is drawn from this setting.

Please see the **Storing and Using Submasters** chapter of your console's manual for more information on Proportional and Intensity Masters.

HTP

Intensity playback behavior can be set to HTP (highest takes precedence) or LTP (latest takes precedence).

Exclusive

Faders can be placed in exclusive mode. This prohibits storing the contribution of the fader into any record targets.

Restore

Faders can be placed into restore modes of minimum or background, which is the default. When a fader is in the restore to background mode, the restore column of the fader list display will be blank. When in minimum mode, 'Min' will display in the restore column.

The restore mode of background means that when the fader is returned to zero, control will be restored to the background value, such as another fader or a cue.

The restore mode of minimum means that when the fader is faded down, control does not go to the previous background state but to the parameters' minimum value.

Priority

The Independent setting for faders has been changed to priority. There are 10 levels of priority for faders. 1 is the lowest and 10 is the highest. faders can still be shielded, which means that their content is automatically made exclusive and can't be controlled by anything other than that fader and park, including by manual control. Shielded has a higher priority than 10.

Background

Faders can have their background states disabled. Background states are enabled by default. When enabled, the content of the fader will act as a background or previous state for other cues and faders.

Background Priority

Background can have a priority assigned to it.

In previous software releases, when content was released, it always returned to the last fader that owned it. Background priority releases to the highest priority content that previously had ownership, provided that content has not been turned off or released.

There are 10 levels of background priority for faders. 1 is the lowest and 10 is the highest. When LTP content is released to background, it will go to the background state with the highest available priority.

Up Time

This is the time for the fader to fade from its home position to its target position (0 to Full if additive, Full to 0 if inhibitive). The default time is 0.

Dwell Time

This is the time the fader look will hold before starting the downfade. This can be set to a specified time, or to "Hold" or "Manual". "H old" time maintains the fader values until the bump is pressed a second time. "Manual" time applies the fader values only as long as the bump is held. The default is "Manual".

Down Time

This is the time for the fader to fade from its target position to its home position. The default time is 0.

Stomp Mode

Stomp happens when all the content owned by a fader is now being controlled by other targets. The fader is being removed from the background, and once that happens, it would not be eligible to fade back. You can assign behavior that will happen when a fader is stomped.

- » **Off When Stomped** - puts the content into an off state, the same behavior encountered when pressing **[Off] + [Load]**.
- » **Unload When Stomped** - unloads the fader.

- » **Nothing When Stomped** - no action happens to the fader.
- » **Release When Stomped** - This function behaves the same as Off When Stomped.

Unmark at 0%

When this option is on, marked content controlled by the fader will automatically be released when the fader reaches 0%. When the bump button is next pressed, the fader will fire. If this option is off, you would need to first press the bump button to reset the fader before pressing the bump again to fire it.



Note: This option is for faders that are set to Intensity Master.

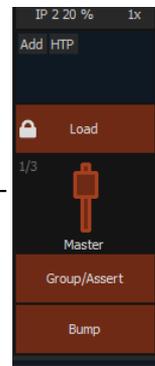
Fader and Button Configuration

Click or tap on the virtual buttons or fader to see a list of available configuration options.

Button Options

The following options are available for fader buttons:

- » **Bump** - plays back the content at 100% of the recorded level. It will continue to do so until released, unless the submaster has a time assigned or the **{Hold}** property set.
- » **Group/ Assert** - selects all the channels associated with the fader, if the fader is inactive. If active, the contents of the fader will be asserted.
- » **Assert** - regains control of all of the channels associated with the fader.
- » **Group Select** - selects the channels stored in the fader. This is the same as **[Group] [Sub] [n]**.
- » **Freeze** - halts all effect activity on the fader.
- » **Off** - removes the content and if the fader is set to Master, the fader will remain where it currently is.
- » **Release** - removes the content and if the fader is set to Master, the fader will reset to 0.
- » **Stop Effect** - stops the running effects.
- » **Button Disabled** - no action is assigned to the button.



Fader Options

The following options are available for a fader:

- » **Master** - fader will be a proportional master, a manual master, or an intensity master.
- » **Effect Rate** - fader centers to home. It controls the rate of any running effects (same behavior as using rate via the Effect Status Display). The adjusted setting from this control cannot be stored.
- » **Effect Size** - similar to Effect Rate but for effect size.
- » **Rate Master** - homes to center. It adjusts the cue rate, just like rate and load.
- » **Down Fade** - see default behavior of master fader.
- » **Fader Disabled** - no action is assigned to the fade

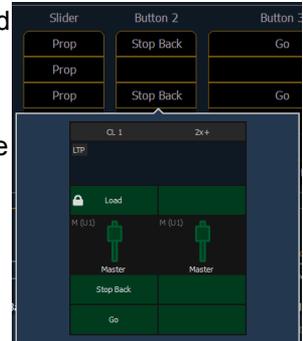
Fader List

The Fader List, which shows all of the faders and their assignments, can be found in Tab 35.

You can also make changes to a fader's configuration while in the fader list display by clicking on a column. A virtual fader will be displayed. Click on the appropriate area of the fader to access the configuration options. Selection can be done by clicking in the column or from the command line.

Range editing is possible in this display by selecting all the needed faders. Changes made to the configuration will be made to all of the selected faders.

With a fader selected, the CIA will also display a virtual fader and the configuration options for that fader.



Fader	Label	Mapped To	Button 1	Slider	Button 2	Button 3
1/2		S 1: wash	Load	IM	Group/Assert	Bump
x2				IM		
1/4		GM	Load	Prop		Blackout
1/5		S 1: wash	Load	IM	Group/Assert	Bump
1/7		FP 2: piano	Load	Prop	Group/Assert	Bump
1/8		IP 4: 40 %	Load	Prop	Group/Assert	Bump

Mode	Master	HTP	Exclusive	Restore	Priority	Up Time	Stomp Mode	Unmark at 0%
Additive	Proportional	HTP	On	Minimum	P4	5	Off When Stomped	On
Inhibitive	I-Master	LTP	Off	Background	Background	Dwell Time	Unload When Stomped	Off
Effect					Disabled	Down Time	Nothing When Stomped	
					Background	5	Release When Stomped	

Fader Ribbon

The fader ribbon has been updated to show the fader color coding that is used in the fader configuration tools.

Grandmasters and inhibitive submasters are in red, additive submasters are yellow, playback faders display in green, and presets and palettes are orange.



In the above screenshot, Fader 1 has discrete off. There is a link icon that displays to indicate that discrete is off. Fader 4 is set to an intensity master and is displaying an IM to indicate that.

Changes to ML Controls

There are several changes to the ML Controls display:

- » There are now category shortcut keys on the left side of the ML Controls display. Press a key to quickly access those controls.

- » Button size has increased for better touchscreen control.
- » When there is room, multiple rows of parameters will now display, and you can scroll the display vertically.
- » The palette buttons have been removed from the ML Controls display.



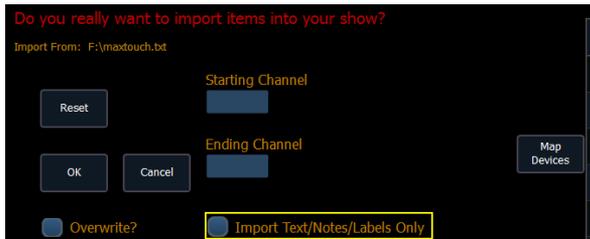
Note: Element consoles will display the palette buttons on the left side of the ML controls display.

Managing Show Files

Changes in this section impact the Managing Show Files chapter.

Lightwright Import Addition

A new option, **{Import Text/Notes/Labels Only}**, has been added to the Lightwright import display. This option allows you to import just the patch database text.



Park Buffer

The contents of the park buffer are now saved with a show files. But by default will not open with a show file.

You can load the park buffer, but it requires an additional step of confirming that you want to open the park buffer. You will need to click or press the check box by the text **Yes, Include the Park Buffer**.



Using [Thru] and [At] in Advanced Views

In the **{Advanced}** views within Show File managing options, such as Merge and Open, you can use the **[Thru]** key to jump to the End column and **[At]** to jump to the Target column.

Type	List	List Target	Start	End	Target
Cues			5		

Patch

Changes in this section impact the Patch chapter.

Patch Softkeys

The softkeys in Patch have changed. With a channel selected, the softkeys that display when you press **{Attributes}** are now the same as when you press **{Patch}**.

Those softkeys are:

- >> **{Replace}**
- >> **{Swap}**
- >> **{Properties}**
- >> **{Offset}**
- >> **{Unpatch}**

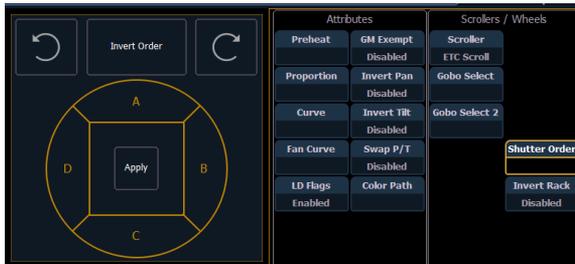
Footprint Column Added to Fixture List

A column for DMX footprint has been added to the fixture list in Patch. The DMX footprint tells the number of addresses the fixture needs.

Number	Type / Label	Number Of Parameters	Remote Dimmer	Footprint
1	Dimmer	1		1
2	Coloram 2 Scroller	1		1
3	VL3500 Spot	32		31
4	Sensor Dimmer	1		1
5	Mac 700 Profile Basic	27		23
6	Mac 2000 Profile 168	27		24
7	Revolution RWM/RWM	18		23

Reordering Shutters

Shutters can be reordered in the Patch **{Attributes}** page. Press the **{Shutter Order}** button to open the shutter order display. The **{Shutter Order}** button will only display if a channel with shutters is currently selected.



Note: Shutters have been renamed from 1 - 4 to A - D.

In this display, you can invert the shutter order or rotate the order using the arrow buttons. After you have created the order needed, press **{Apply}** for your changes to take effect.

Note: Shutter parameter names have also changed. Frame In is now Thrust and Frame Angle is Angle. Any macros that used shutter parameters in older show files will need to be updated to the new names.

Invert Rack

An **{Invert Rack}** option has been added to **Patch>Attributes>Scrollers/Wheels**. This option will only display when a fixture with a shutter frame assembly parameter is selected.

The shutter frame assembly parameter allows for the shutter assembly to be turned. When **{Invert Rack}** is disabled, an encoder will move the frame assembly from the right. When enabled, the frame assembly will move from the left.

Setup

Changes in this section impact the Setup chapter.

Allow +% and - % to be More Than 100%

In **Setup>Desk>Manual Control**, you can now assign +% and -% to values that have up to five digits.

Cell Editing

In **Setup>Desk>Displays**, a new option called **{Cell Editing}** has been added. When disabled, this setting prevents changes to be made to the cells in the Live/Blind and Playback Status Displays. **{Cell Editing}** is enabled by default.



Note: Options in the CIA are not affected by this setting.

Cue Time

You can assign **[Cue]** as a timing value for the **{Go to Cue Time}** and **{Back Time}** in **Setup>Desk>Manual Control>Default Times**. The syntax, **{Go to Cue Time} [Cue] [Enter]** or **{Back Time} [Cue] [Enter]** will assign cue as the timing value.

When **[Go To Cue] [n] [Enter]** or **[Back]** is used, the fade will happen in the time set in the destination cue.

Display Setup Options Moved

Several options that were previously available in **Setup>Desk>Displays** have been moved to the Live Configuration Menu. That menu is accessed by double tapping or right clicking on either the Live Table or Live Summary tabs.

Those options are:

- » High Contrast
- » Show Reference Labels
- » Group Chans by 5
- » 100 Channel Display

See [Live and Blind Configuration Menu \(on page 1\)](#) for more information.

Some options are available in the Playback Status Display Configuration (PSD) menu. That menu is accessed by double tapping or right clicking on the PSD tab.

Those options are:

- » Cmd Line on PSD
- » PSD Time Countdown

See [Playback Status Display Configuration \(on page 2\)](#) for more information.

Release and Off Times Added to Setup

Previously the Release and Off functions used the Assert timing from Setup. Now you can assign separate timing values to the Release and Off functions by going to **Setup>Desk>Manual Control>Default Times**.

Manual Control

Changes in this section impact the Basic Manual Control or the Advanced Manual Control chapter.

Color Path Option in Record Targets and Managing Show Files

You can access the Color Path list from the CIA by going to **Browser>Record Target List>Color Path**.

Color Path is also now included in the list of show components for show file functions such as partial show loading, printing, and merging,

Copy To and Move To for Labels, Scenes, and Notes

The **[Copy To]** and **Move To ([Copy To][Copy To])** commands can be used to copy or move labels between any target types that can have labels. A **{Labels Only}** softkey will display.

» **[Sub] [1] [Copy To] [Sub] [3] {Labels Only}** will copy submaster 1's label to submaster 2.

Labels, scenes, and notes can be copied or moved between cues. The **{Labels Only}**, **{Scene Only}**, and **{Notes Only}** softkeys will display.

» **[Cue] [3] [Copy To] [Copy To] [Cue] [6] {Notes Only}** will move the note from cue 3 to cue 6.

Working with Cue Lists

Changes in this section impact the Working with a Single Cue List, Working With Multiple Cuelists, or Cue Playback chapter.

New Cue Softkeys

When **[Cue]** is pressed, a new softkey called **{Attributes}** will display.

Press **{Attributes}** to access the following softkeys:

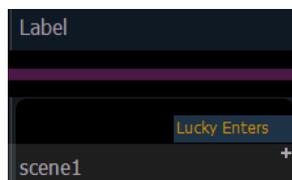
- » **{Rate}**
- » **{Note}**
- » **{Scene}**
- » **{Curve}**
- » **{Preheat}**
- » **{AF/MF}**

Scene and Note are new softkeys. For more information on their functions, see [Scenes \(on the next page\)](#) and [Cue Notes \(below\)](#).

Cue Notes

Cues can have notes attached to them.

These notes can be viewed in the Playback Status Display and the Cue List Index by hovering a mouse over or tapping on the + in the Label column.



To add a note to a cue:

» [Cue] [n] {Attributes} {Notes}

You can use the virtual alphanumeric keyboard or an external keyboard to enter the desired text.

See [Playback Status Display Configuration \(on page 2\)](#) for additional display options.

See [Copy To and Move To for Labels, Scenes, and Notes \(on the previous page\)](#) for more information.

Go After Loop

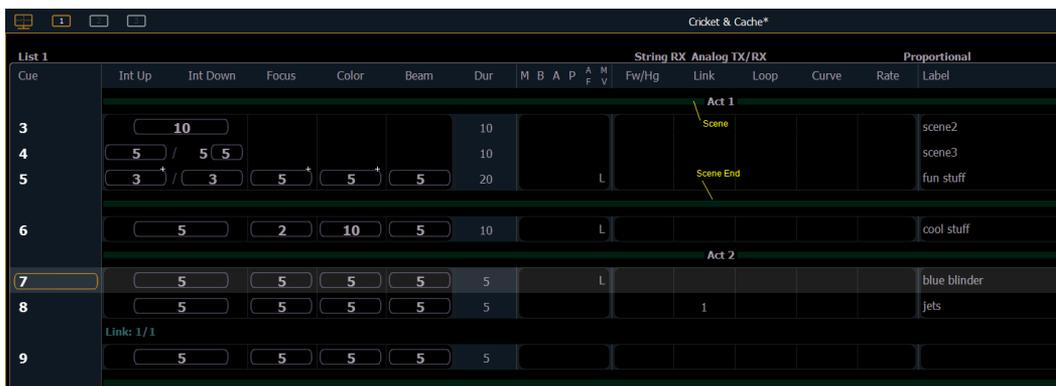
A {Go After Loop} softkey has been added as a Cue {Execute} option.

{Go After Loop} will execute the next cue after a follow link/loop sequence has ended. By default, the loop will end with the last cue in the sequence. {Go After Loop} will use the follow time assigned to the last cue in the sequence.

- » [Cue] [5] {Execute} {Go After Loop} [Enter] - assigns the {Go After Loop} command to cue 5. Go After Loop will display in the Ext Links Column of the PSD.

Scenes

Scenes are a cue organization tool that provide a visual identifier for breaks in your show. Scenes allow for quick cue list navigation without needing to remember a cue's number.



Scenes display in the playback status display as a green bar above the cue they are associated with in the list. An end of scene can also be created, and those display as a green bar under their associated cue.

Creating a Scene Break

You can add a scene break by using the {Scene} softkey. For example, [Cue] <1 > {Attribute} {Scene} will add a scene to cue 1.

The virtual alphanumeric keyboard will open. You will need to label the scene before it is created.

Scene End

You can specify where a scene ends by using the {Scene End} softkey. For example, [Cue] <5 > {Attribute} {Scene End} will add a scene end to cue 5.

You can create a scene and a scene end at the same time by using [Thru]. For example, [Cue] [1] [Thru] [5] {Scene} will add a scene to cue 1 and a scene end to cue 5.

Updating a Scene

The {Scene End} softkey can also be used when updating the cues in a scene. For example, [Update] <Cue> [1] [Thru] {Scene End} will put the last cue of that scene on the command line.

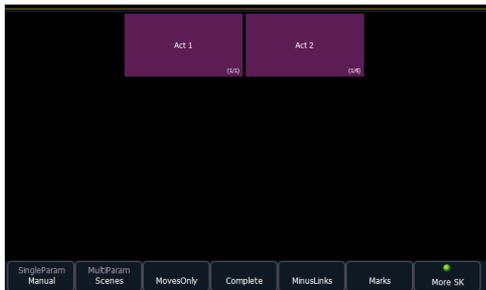


Note: Tracking / cue only rules still apply. If your console is in tracking mode, and you want the update to stop at the scene end, you will need to use the **[Cue Only]** command.

Using A Scene Break

You can recall a scene to quickly jump to a cue without needing to remember its number. To recall a scene, use the **[Go to Cue]** button and select the **{Scenes}** softkey.

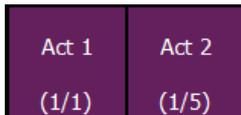
This will open up the scene selection display in the CIA. The scene's label and cue will display. Press or click on the scene to select it.



Scenes can also be recalled by using the direct selects. See [Scenes on Direct Selects \(below\)](#) for more information.

Scenes on Direct Selects

[Scenes \(on the previous page\)](#) can be selected from the direct selects. From the direct selects display, press **{Select}** and then **{Scenes}** to view your scenes on the direct selects. The direct select will show the scene's label and cue.



Pressing a scene direct select will post the cue number associated with that scene as a terminated command onto the command line.

Double pressing a scene direct select will fire the cue, if **{DirSelDbl Ck}** has been enabled in **Setup>Desk>Displays**.

To post as an unterminated command, hold down **[Shift]** as you press the direct select.

Go to Cue Options

In previous versions of software, you could only home a cue list to its first cue. You can now home a cue list to its last cue by using **[Shift]**.

- » **[Go to Cue] [Home] [Enter]** homes the currently selected cue list to its first cue. **[Go to Cue] [x] [/] [Home] [Enter]** homes a cue list to its first cue.
- » **[Go to Cue] [Shift] [Home] [Enter]** homes the currently selected cue list to its last cue. **[Go to Cue] [x] [/] [Shift] [Home] [Enter]** will take you to the last cue in a cue list.

Command Line Behavior for Cue List Index

The command line while in the Cue List Index now defaults to cue list selection. Previously it would default to cue selection. The softkeys that display will default to cue list control.

[Next] and **[Last]** will select the next or last cue list if no cue list or a cue list but no cue is on the command line.

When a specific cue is selected, **[Next]** and **[Last]** will move through the cues in that same list, and the softkeys will change to be for a single cue control.

Cues Column in Cue List Index

A column that shows the number of cues in a cue list has been added to the Cue List Index.

Creating and Using Effects

Changes in this section impact the Creating and Using Effects chapter.

Beats Per Minute Sample Change

Previously you had to press **[Enter]** five times for the console to learn the desired beats per minute (BPM). Now you can just press **[Enter]** three times to learn the BPM.

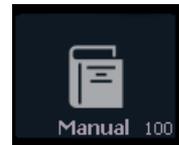
Using About

Changes in this section impact the Using About chapter.

What's New Button

In the **[About]** display, a **{What's New}** button has been added. Tap on this button to open the user documentation on the console. The documentation will open in Tab 100. For 2.4, the manual supplement is available on the console.

You can also open the documentation from the Display Management Home Screen by pressing the Manual icon.



Note: Only one instance of the documentation can be open at a time.

Texts and Notes in **[About]** Address

Information stored in the Text 1-10 and the Notes fields in **Patch>Database** will now display in the **[About]** Address table.

[About] Cue Discrete Time/ Delay Column

A new column has been added to the **[About]** Cue display. The Discrete Time/ Delay column shows all the channels in that cue that have discrete or delay times.

Allowed Output Addresses in **[About]**

The default **[About]** display now shows the Allowed Output Addresses, which is a range or ranges of addresses that can be assigned to limit the number of output addresses. Allowed Output Addresses is a setting in the ECU. Go to **Settings>Network>Output Protocols>Allowed Output Addresses** to make changes if needed.



Note: If you have created ranges for the Allowed Output Addresses, those will display in **[About]** as well.



Storing and Using Snapshots

Changes in this section impact the Storing and Using Snapshots chapter.

Snapshot Colors

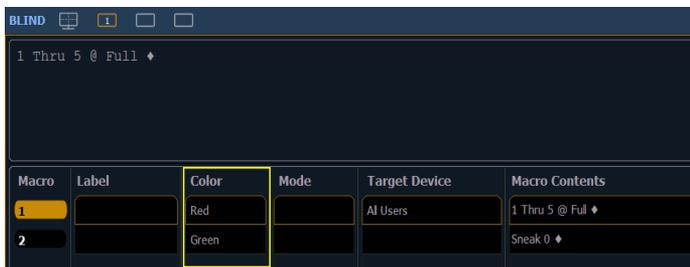
In the Snapshot Editor, you can assign colors (**{Red}**, **{Green}**, or **{White}**) or **{Dark}** to a snapshot. **{Dark}** assigns no color to the snapshot. The colors will display beside the snapshots name in a direct select, and/or if that snapshot has been assigned to one of the customizable hardkeys on Eos Ti, Gio, and RPU.

Storing and Using Macros

Changes in this section impact the Storing and Using Macros chapter.

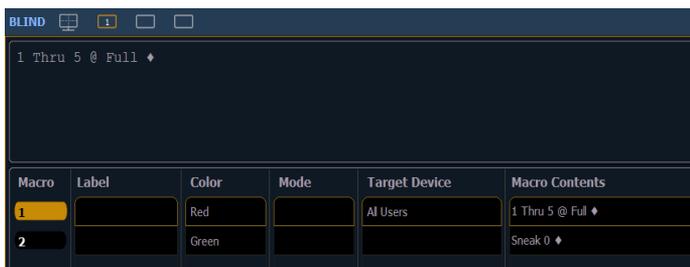
Macro Colors

In the Macro Editor, you can assign colors (**{Red}**, **{Green}**, or **{White}**) or **{Dark}** to a macro. **{Dark}** assigns no color to the macro. The colors will display beside the macro name in a direct select, and/or if that macro has been assigned to one of the customizable hardkeys on Eos Ti, Gio, and RPU.



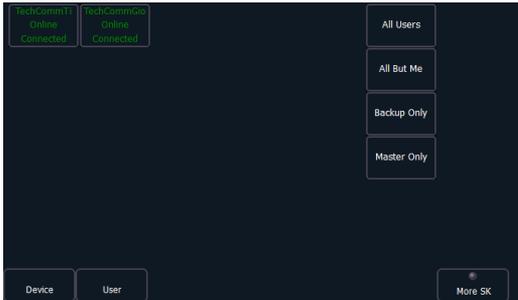
There is also a **{Toggle Blink}** softkey. By default a customizable hardkey will blink when the macro assigned to it is running. This softkey will turn off the blinking if it is enabled and a BD will display in the color column when blinking is disabled.

Target Devices for Macros



A macro can have a Target Device assigned to it. This allows a cue to execute a macro only on a certain console.

The Target Device can be a device name or User ID. These are assigned to a macro in the Macro Display by using the **{Target}** softkey and either selecting **{Device}** and **{User}**. Pressing **{Target}** will also display a list of connected devices and additional target options.

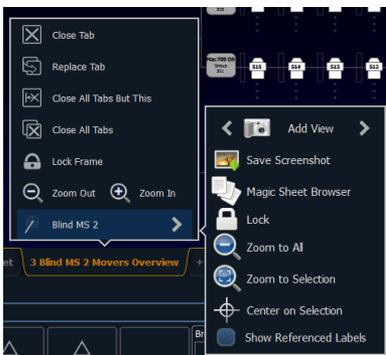


Using Magic Sheets

Changes in this section impact the Using Magic Sheets chapter.

Magic Sheet Display Tools

The display tools for Magic Sheets are now available by either right clicking or double tapping on the Magic Sheet's tab.



Note: You can click and hold or tap and hold on the Magic Sheet's tab to do a zoom to all of the Magic Sheet display.

Show Reference Labels

A new display option, Show Reference Labels, has been added to the Magic Sheet Display Tools.

When enabled, referenced record targets (such as presets or palettes) with labels will have their labels displayed in the Magic Sheet rather than their target type and number.

[Shift] & [Label] can be used to temporarily toggle between views.

Facepanel Shortcuts

Overview

The following is a list of button pushes: single, maintained, or combined. It is highly recommended that you read and familiarize yourself with this list. For keyboard shortcuts, see [Eos Family Hotkeys \(on page 30\)](#)

and [Element Hotkeys \(on page 32\)](#).

Displays

- » **[Data]** (maintained press) - toggles the display to show data living under referenced data. Keep **[Data]** depressed to page.
- » **[Shift] + [Data]** - locks the display to the absolute data display.
- » **[Time]** (maintained press) - toggles the display to show discrete timing. Keep **[Time]** depressed to page.
- » **[Shift] + [Time]** - locks the display to discrete time display.
- » **[Data] + [Focus Encoder Page] / [Color Encoder Page] etc** - to expand/suppress categories on displays (lon)
- » **[Data] + [Parameter Tiles]** - to suppress/display individual parameters from the display when not in summary view (lon)
- » **[Params] + [Focus] / [Color] / [Beam]** - to expand/suppress categories on displays (Ti/Eos/ Gio)
- » **[Params] + Parameter Tiles** - to suppress/display individual parameters from the display when not in summary view (Ti/Eos/Gio)
- » **[Displays] + [Level Wheel]** - dim the Littlelites or backlighting/LCDs (as selected by the user).
- » **[Displays] [Displays]** - resets the CIA to the browser
- » **[Shift] + [Left], [Shift] + [Right]** - move columns
- » **[Shift] + [Up], [Shift] + [Down], [Shift] + [Level Wheel]** - resize columns
- » **[Shift] + [Path]/{Path}** - toggles the display to show values behind referenced data
- » **[Shift] + [Select]** - reset Display Columns
- » **[Shift] + [Tab]** - clear all tabs on the current monitor (but keep locked frames) (Does not clear tab 1 and 2)
- » **[Shift] + [Tab] [Tab]** - clear all tabs on all monitors (but keep locked frames) (Does not clear tab 1 and 2)
- » **[Shift] + [Tab] [Tab] [Tab]** - clear all tabs on all monitors (including locked frames) (does not clear tab 1 and 2)
- » **[Shift] + [Label]** (maintained press) - toggles the display between default view of referenced data and alternate view. Keep Shift depressed to page.
- » **[Shift] + [Label] [Shift] + [Label]** - double press to lock reference labels on. Press **[Shift] + [Label]** again to unlock.
- » **[Shift] + [Live/Blind]** - advances the displays to the next instance of live or blind
- » **[Live]** (when already in live) - resyncs the selected cue to the most recently activated cue
- » **[Blind]** (when already in blind) - resyncs the selected cue to the live selected cue (when blind cue has been changed or when preserve blind cue has been enabled).
- » **[Flexi] + [Time]** - to invoke flexi time view on displays
- » **[Format] + [Level Wheel]** - zooms the display in focus
- » **Left Mouse Button + Scroll** - zooms the display in focus on a PC
- » **Scroll with two fingers** - zooms the display in focus on a Mac
- » **[Tab] + [Up/Down Arrow]** - cycle workspaces
- » **[Tab] + [Left/Right Arrow]** - move displays
- » **[Tab] + [number]** - open or focus specific displays

Facepanel

- » **[Shift] + [Escape]** - to lock and unlock face panel
- » **Encoder Paging Keys + [Number]** - pages to the desired encoder control page

ETC Supplement

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- » **[Escape] + Encoder Paging Keys** - locks the encoders. Press any encoder page button to unlock.
- » **[Flexi] + Encoder Paging Key** - to invoke flexi encoder states
- » **[Fader Controls] + [Bump Button]** - select a fader page on wings
- » **[Fader Page] + Rate Wheel** - rolls the selected fader page (Ti/Eos/Gio)
- » **[Fader Page] + [number]** - select a fader page on integral faders (Ti/Eos/Gio)
- » **[Fader Page]** - increments the fader page by (Ti/Eos/Gio)
- » **[Shift] + [Fader Page]** - decrements the fader page by 1 (Ti/Eos/Gio)
- » **[Off] + [Load]** - releases control of content, restoring to background and leave cue list with pending cue in tact
- » **[Release] + [Load]** - releases control of content, restoring to background, and resets cue list to top
- » **[Shift] + [Go] or [Shift] + [Back]** - cuts the pending cue or the previous cue
- » **[Shift] + [Load]** - to remove content from a fader

Operations

- » **[At] [Enter]** - removes move information from selected channel/parameters.
- » **[At] [At]** - set to Level (as defined in Setup).
- » **[Color] (Encoder page key) + Encoder Movement** - hold Color Point while adjusting parameters
- » **[Copy To] [Copy to]** - posts Move To on the command line.
- » **[Full] [Full]** - sets selected channels intensity to “full” and self terminates
- » **[Label] [Label]** - appended to a record target command, clears the current label, this includes show file labels
- » **[Recall From] [Recall From]** - posts Recall From Cue to the command line
- » **[Record] [Record]** - posts Record Only to the command line.
- » **[Select Active] [Select Active]** - Select Active minus submaster contributions
- » **[Shift] + [Select Active]** - posts Select Non-Sub Active
- » **[Select Last]** - repeats last command line, unterminated; does a loop of last five commands
- » **[Shift] + [At]** - recalls last channel(s) and parameters without terminating; does a loop of last five commands
- » **[Shift] + [Enter]** - reselects the last command and leaves it unterminated; does a loop of last five commands
- » **[Shift] + [Block]** - posts Intensity Block to the command line
- » **[Shift] + [Clear]** - clears the command line
- » **[Shift] + [Delay]** - posts follow
- » **[Shift] + Encoder Paging Key** - posts the category to the command line. For beam subcategories, press Image, Form or Shutter twice to post Beam. (Ion/Gio)
- » **[Shift] + Encoder Movement** - accesses fine mode
- » **[Shift] + Encoder Toggle** - posts the parameter to the command line (Ion)
- » **[Shift] + Gel Tile** - cycles through three modes of Brightness
- » **[Shift] + [Full] or [Shift] + [Out]** - flash On or Flash Out
- » **[Shift] + [+] or [Shift] + [-]** - +% or -%
- » **[Shift] + [Highlight]** - appends highlight to the current channel selection.
- » **[Shift] + [Parameter]** - from the encoder controls, posts the parameter to the command line.
- » **[Shift] + [Select Last]** - posts additional channel selection options to the softkeys
- » **[Shift] + [Sneak]** - makes manual data unmanual.
- » **[Shift] + [Update]** - shortcut to Save
- » **[Shift] + restore manual channel faders** - reset faders to zero without asserting control.

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- » **[Shift] + [Direct Select]** - posts DS to the command line without terminating
- » **[Sneak] [Sneak]** - releases NPs of selected channels and self terminates
- » **[Timing Disable] + [Go]** or **+ [Back]** - cuts the next cue or cuts the last cue
- » **[Thru] [Thru]** - **[Thru]** command accesses only channels displayed in the current flexi-state (unless the range specified is NOT in the current display). **[Thru] [Thru]** selects the range regardless of the flexi mode.
- » **[Trace] [Trace]** - forces a previously inactive light to track its new intensity setting backwards
- » **[Undo]** - clears an unterminated command line. Otherwise opens undo controls
- » **[Update] + [Sub Bump]** - to update a specific submaster
- » **[n] [At] [/] [/] [m] [Enter]** - sets direct DMX value (m) for channel (n).
- » **[Shift] + [Delay] [Delay]** - posts hang to the command line

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Eos Family Hotkeys

To enable Eos functions on Mac Function keys:

- » Open Systems Preferences
- » Go into the Keyboard section
- » Enable the “Use all F1, F2, etc... keys as standard function keys” setting.



Note: Some international keyboards require “Use Shift Key as Eos Shift” to be disabled in the General section of the ECU Settings. Use Z as shift to access shortcut functions in these cases.

Console Key	PC	Console Key	PC	Console Key	PC
Shortcut List	;	Capture	Control Alt P		Control 3
	?	Clear	Backspace	Focus Filter	Control F
0	0	Clear Command Line	Shift Backspace	Focus Palette	Alt F
1	1		Control Alt Backspace	Follow/Hang	Shift D
2	2	Clear Label	Control Backspace		Control Alt D
3	3	Color Filter	Control C	Format	F4
4	4	Color Palette	Alt C		Control 4
5	5	Color Path	Control Alt W	(Scroller) Frame	Control Alt C
6	6	Copy To	C	Freeze	Control Alt F
7	7	Cue	Q	Full	F
8	8	Cue Only/Track	X	Go	Spacebar
9	9	Data	Control D	Go To Cue	Control G
. (decimal)	. (decimal)	Data Mode	Control Shift D	Go to Cue Zero	Control Alt G
- (minus)	- (minus)	Delay	D	Group	G
+(plus)	=	Delete	Delete	Help	Alt /
	+	Delete (Mac)	Fn Delete	Highlight	\
+%	Shift =	Displays	F9		Control Alt H
	Control Alt =		Control 9	Home	Home
+% (Mac)	Shift Fn Up Arrow	Effect	Alt E		Control H
-%	Shift -	Effects Softkeys	Alt Shift E	Home (Mac)	Fn Left Arrow
	Control Alt -	Encoder Display (Gio)	Control Alt \	Intensity Block	Shift B
-% (Mac)	Shift Fn Down Arrow	Encoder Page Color^	Control Alt [		Control Alt B
/	/	Encoder Page Focus^	Control Alt ,	Intensity Filter	Control I
About	Y	Encoder Page Form^	Control Alt ;	Intensity Palette	Alt I
Address/Dimmer	Alt A	Encoder Page Image^	Control Alt]	Label / Note	L
All NPs	Control N	Encoder Page Intensity^	Alt .	Last	Page Up
Assert	Control W	Encoder Page Shutter^	Alt ,		Control ,
Assert (Playback)	Control Alt A	Enter	Enter	Last (Mac)	Fn Up Arrow
At	A	Escape	Escape	Learn	Alt L
	@	Expand	F5	Level	V
	*		Control 5	Live	F1
Beam Filter	Control B	Fader Pages	Control P		Control 1
Beam Palette	Alt B	Fan	W	Load	Control Alt L
Blind	F2	FlexiChannel	F3	Macro	M
	Control 2			Macro 801*	Control Alt 1
Block	B			Macro 802*	Control Alt 2

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Console Key	PC	Console Key	PC	Console Key	PC
Macro 803*	Control Alt 3	Record	R	Update	U
Macro 804*	Control Alt 4	RecordOnly	Control R	Virtual Keyboard	Control K
Macro 805*	Control Alt 5	Release	Control Alt S	Workspace	] or [
Macro 806*	Control Alt 6	Rem Dim	H		
Macro 807*	Control Alt 7	Scroll Lock	F6	Shell Shortcut	
Macro 808*	Control Alt 8		Control 6	Shell Key	PC
Macro 809*	Control Alt 9	Select	Control Enter	0	0
Macro 810*	Control Alt 0	Select Active	Control A	1	1
Magic Sheet	Alt M	Select Last	Control L	2	2
Manual Override	Control Alt M	Select Manual	Control M	3	3
	Control Alt N	Setup	Alt S	4	4
Mark	K	Shift	Z	5	5
Mirror, Start	Alt F1	Snapshot	Control S	6	6
Mirror, Stop	Alt F2	Sneak	N	7	7
ML Controls	F7	Softkey 1	Alt 1	8	8
	Control 7	Softkey 2	Alt 2	9	9
More Softkeys	Alt 7	Softkey 3	Alt 3	. (decimal)	. (decimal)
Next	Page Down	Softkey 4	Alt 4	- (minus)	- (minus)
	Control .	Softkey 5	Alt 5	+ (plus)	=
Next (Mac)	Fn Down Arrow	Softkey 6	Alt 6	/	/
Off	Control Alt O	Spacebar Disable	Alt G	Arrow, Down	Arrow, Down
Offset	Control O	Stop/Back	Control Spacebar	Arrow, Left	Arrow, Left
Out	O		Control Alt Q	Arrow, Right	Arrow, Right
Page Left	Left Arrow	Stop Effect	Control Alt E	Arrow, Up	Arrow, Up
Page Right	Right Arrow		Control Alt K	Back	Esc
Page Up	Up Arrow	Submaster	S	Clear	Backspace
Page Down	Down Arrow	Tab	Tab	Delete	Delete
Parameters (Display)	Control D	Time	I	Enter	Enter
Park	Alt K	Time (Displays)	Shift I	Escape	Esc
Part	P		Control Alt I	Select	Return
Patch	::	Timing Disable	Control Alt T		
Pixelmap	Alt X	Toggle Hotkeys	F8		
Preset	Alt P		Control 8		
Query	Control Q	Trace	J		
Rate	Control Alt R	Thru	T		
Recall From	E	Undo	Control X		

*Some Shortcut Key combinations are not available on all physical keyboard layouts.

^Alternatively use Encoder Display + category to change the encoder pages.

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Element Hotkeys

To enable Eos functions on Mac Function keys:

- » Open Systems Preferences
- » Go into the Keyboard section
- » Enable the “Use all F1, F2,etc... keys as standard function keys” setting.



Note: Some international keyboards require “Use Shift Key as Eos Shift” to be disabled in the General section of the ECU Settings. Use Z as shift to access shortcut functions in these cases.

Console Key	PC	Console Key	PC	Console Key	PC
Shortcut List	;	Clear Command Line	Shift Backspace	Help	Alt /
	?		Control Alt Backspace	Home	Home
0	0	Clear Label	Control Backspace		Control H
1	1	Color Filter	Control C	Home (Mac)	Fn Left Arrow
2	2	Color Palette	Alt C	Intensity Filter	Control I
3	3	Color Path	Control Alt W	Intensity Palette	Alt I
4	4	Copy To	C	Label / Note	L
5	5	Cue	Q	Last	Page Up
6	6	Cue Only/Track	X		Control ,
7	7	Data	Control D	Last (Mac)	Fn Up Arrow
8	8	Data Mode	Control Shift D	Learn	Alt L
9	9	Delay	D	Level	V
. (decimal)	. (decimal)	Delete	Delete	Live	F1
- (minus)	- (minus)	Delete (Mac)	Fn Delete		Control 1
+(plus)	=	Displays	F9	Load	Control Alt L
	+		Control 9	Macro	M
+%	Shift =	Effect	Alt E	Macro 801*	Control Alt 1
	Control Alt =			Macro 802*	Control Alt 2
+% (Mac)	Shift Fn Up Arrow	Enter	Enter	Macro 803*	Control Alt 3
-%	Shift -	Escape	Escape	Macro 804*	Control Alt 4
	Control Alt -	Expand	F5	Macro 805*	Control Alt 5
-% (Mac)	Shift Fn Down Arrow		Control 5	Macro 806*	Control Alt 6
/	/	FlexiChannel	F3	Macro 807*	Control Alt 7
About	Y		Control 3	Macro 808*	Control Alt 8
Address/Dimmer	Alt A	Focus Filter	Control F	Macro 809*	Control Alt 9
All NPs	Control N	Focus Palette	Alt F	Macro 810*	Control Alt 0
At	A	Follow	Shift D	Magic Sheet	Alt M
	@		Control Alt D	Manual Override	Control Alt M
	*	Format	F4		Control Alt N
Beam Filter	Control B		Control 4	Mirror, Start	Alt F1
Beam Palette	Alt B	(Scroller) Frame	Control Alt C	Mirror, Stop	Alt F2
Blind	F2	Full	F	ML Controls	F7
	Control 2	Go	Spacebar		Control 7
Block	B	Go To Cue	Control G	More Softkeys	Alt 7
Capture	Control Alt P	Go to Cue Zero	Control Alt G	Next	Page Down
Clear	Backspace	Group	G		Control .

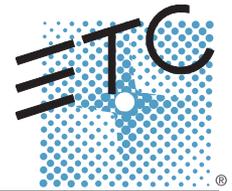
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Console Key	PC	Console Key	PC	Shell Shortcut	
Next (Mac)	Fn Down Arrow	Snapshot	Control S	Shell Key	PC
Offset	Control O	Sneak	N	0	0
Out	O	Softkey 1	Alt 1	1	1
Page Left	Left Arrow	Softkey 2	Alt 2	2	2
Page Right	Right Arrow	Softkey 3	Alt 3	3	3
Page Up	Up Arrow	Softkey 4	Alt 4	4	4
Page Down	Down Arrow	Softkey 5	Alt 5	5	5
Parameters(Display)	Control D	Softkey 6	Alt 6	6	6
Park	Alt K	Spacebar Disable	Alt G	7	7
Part	P	Stop/Back	Control Spacebar	8	8
Patch	::		Control Alt Q	9	9
Rate	Control Alt R	Stop Effect	Control Alt E	. (decimal)	. (decimal)
Recall From	E		Control Alt K	- (minus)	- (minus)
Record	R	Submaster	S	+ (plus)	=
RecordOnly	Control R	Tab	Tab	/	/
Release	Control Alt S	Time	I	Arrow, Down	Arrow, Down
Rem Dim	H	Timing Disable	Control Alt T	Arrow, Left	Arrow, Left
Scroll Lock	F6	Toggle Hotkeys	F8	Arrow, Right	Arrow, Right
	Control 6		Control 8	Arrow, Up	Arrow, Up
Select	Control Enter	Thru	T	Back	Esc
Select Active	Control A	Undo	Control X	Clear	Backspace
Select Last	Control L	Update	U	Delete	Delete
Select Manual	Control M	Virtual Keyboard	Control K	Enter	Enter
Setup	Alt S	Workspace	] or [	Escape	Esc
Shift	Z			Select	Return

*Some Shortcut Key combinations are not available on all physical keyboard layouts.

^Alternatively use Encoder Display + category to change the encoder pages.



Welcome

This document is supplemental to information in the Eos Titanium, Eos, and Gio v2.0 Operations Manual, Ion v2.0 Operations Manual, and Element v2.1 User Manual, and should be used in conjunction with it.

Channel Selection

In previous versions of software, selecting channels from either the Summary or Table displays would append the newly selected channels to existing channels if there was a completed command line.

Now selecting channels from either of those displays will start a new command line.

Emergency Mark

In **Setup>Desk Settings>Record Defaults**, **{Emergency Mark}** has been added.

{Emergency Mark} can be used to automatically set a mark flag if you had not previously done so. If using **{Earliest M}** and no cue with a mark flag has already been set, **{Emergency Mark}** will set a mark flag.

{Emergency Mark} can be set to either Earliest or Latest. Latest is the default setting.

- » If set to Earliest, **{Emergency Mark}** will set the mark flag on the earliest cue after the cue which fades the intensity out for the selected channel.
- » If set to Latest, **{Emergency Mark}** will not set a mark flag. It will instead create a broken mark, which will display an x in the previous cue in the Playback Status Display.

Step Times and Parameters Added to Absolute Effects

A column for step times has been added to the Absolute effects editor display.

Action	Param	Step Time	Time	Dwell	Level
1		10	1	0.5	IP 9
2		10	1	0.5	FP 1
3		10	1	0.5	CP 1
4		10	1	0.5	FP 2
5		10	1	0.5	CP 2
6		10	1	0.5	IP 1
7		10	1	0.5	FP 1

Action	Param	Step Time	Time	Dwell	Level
1		(1)	1	0	0
2		(1)	1	0	Bkgrd
3		(2)	1	1	(+) -50%

Default step times will display in gray and in parentheses, and assigned step times will display in white without parentheses.



Note: The default step time is the time value plus the dwell value.



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If no step time has been assigned, the step will begin once the fade and dwell times for the previous step have completed. If a step time has been assigned, the next step will begin after that set amount of time has elapsed.

You can also now define specific parameters for Absolute effect actions. To apply a parameter to a specific action, click in the Param column and select the desired parameter.

sACN Universes

Eos now allows you to use any sACN universes from 1-63,999. You can assign the starting offset in **ECU>Settings>Network>Output Protocols**.



Note: In Patch, you will still use universe numbers 1 to 128 for patching.



Note: The number of universes that can be used at a time is still limited to a block of 128 contiguous universes.

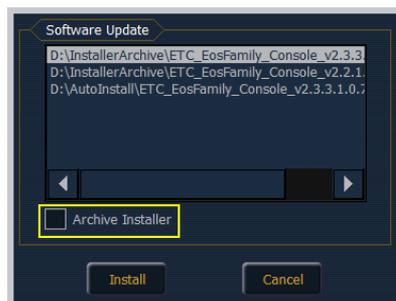
Installer Archive

Eos has implemented an installer archive, which saves selected installers directly onto the console's local hard drive. You can now save multiple software versions onto your console's hard drive in case you wish to downgrade.



Note: On new consoles, some versions are preselected to be archived when it initially ships from ETC. This includes the version of software that is currently installed from the factory as well as any patches to that version (if available). For future release, you will need to download the Eos Family software from the ETC website, www.etcconnect.com.

When the software update window (**ECU> Settings>General> Software Update**) launches, it will show you all available Eos software versions found on an attached USB drive and/or locally stored on the console's hard drive.

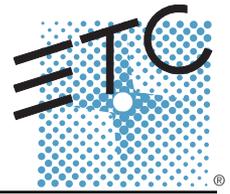


If there is an available update and you want to install it, follow the steps for updating the console's software.

While installing the software, you can also archive the installer used. Check the Archive Installer box for the selected version, and it will archive while installing the software. If you would like to archive installers without installing their software, you can do that by using the File Manager utility in **ECU>Settings>Maintenance**.

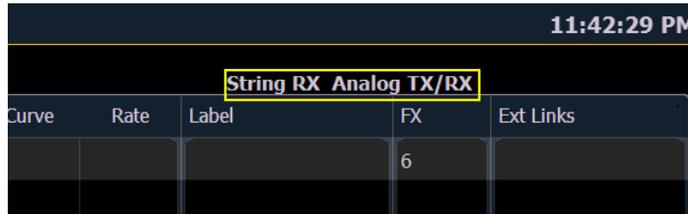
You can also retrieve these versions from the archive to save them to a USB drive by using the File Manager.

Release notes for any newer version can be found on www.etcconnect.com.



Show Control Indicators in the Playback Status Display

If any show control options are currently enabled in **Setup>Show>Show Control**, they will display in the top right corner of the Playback Status Display (PSD).



Virtual Alphanumeric Keyboard

The virtual alphanumeric keyboard, which displays when you are labeling, now has a **{Sym}** button. Press **{Sym}** to switch the keyboard from alphanumeric to symbols. When in symbol mode, press **{Abc}** to return to the alphanumeric keyboard.

Workspace Access From the Command Line

A **{Workspace}** softkey is available by pressing **[Displays]**. Press **{Workspace}** and then type 1, 2, or 3 to go to that workspace.

From an alphanumeric keyboard, the **[** button or the **]** button can be used to select the **{Workspace}** softkey, and then type in the number of the workspace you wish to view.

Go to Cue Out and Solo Mode

The **[Go to Cue]** **[Out]** command will not affect a cue list that is in solo mode.

[Shift] + [Highlight]

On a command line with a channel selection, you can use **[Shift] + [High]** (on Ion use **{Highlight}**) to go into Highlight mode and send the selected channels to the default Highlight setting. This command will self terminate the command line.

If you just use **[High]** or **{Highlight}**, the command line will be cleared.

{In Use} Flexi State

A new flexi state of **{In Use}** has been added. **{In Use}** shows intensities that are above 0 or fading to 0, running effects, non-intensity moves, and any channels marking.

Fixture Library and Software Updates

{Software Update} under **ECU>Setting>General** will now recognize .zip files provided by ETC, which contain either fixture library files or software update executable files.

Fixture library update files will now be distributed as a .zip file, which can be installed on Eos Family consoles, ETCnomad PC, and ETCnomad Mac devices.

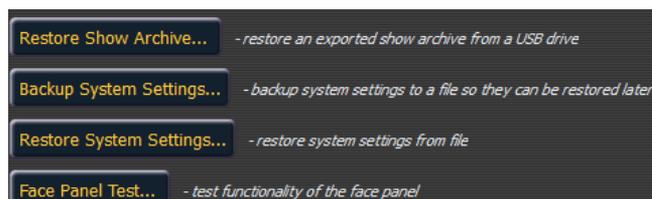


Updating with a .zip file

1. Select the desired .zip file from the Software Update window.
2. You will be asked to confirm that you want to install the selected file. Click **{Yes}** to continue or click **{No}** or **{Cancel}** to return to the Software Update window.
3. A window will open showing the progress of extracting the .zip file. The installer will then launch after the file has been extracted.

Backup and Restore System Settings

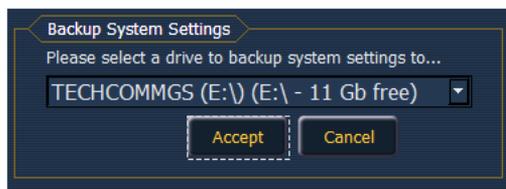
The ability to backup and restore all of the ECU system settings, including Net3 services, has been added to the ECU. **{Backup System Settings}** and **{Restore System Settings}** is found in **ECU>Maintenance**.



This is useful for sharing settings between consoles, including ETCnomad.

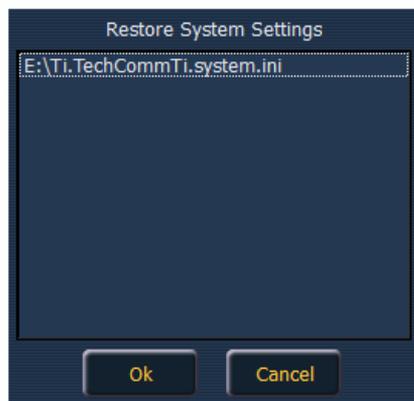
Backup System Settings

{Backup System Settings} will open a window that allows you to save .ini file to a selected drive. To backup settings, select a drive from the drop down menu, and press **{Accept}** to save or **{Cancel}** to exit without saving.



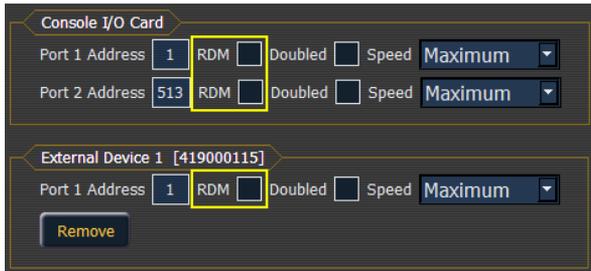
Restore System Settings

{Restore System Settings} will open a window that allows you to select a saved .ini file. Select the desired file and press **{Ok}** to restore settings. Press **{Cancel}** to close the window without restore settings.



Enable RDM

RDM can be enabled for each local DMX port on a console or a Gadget by going into **ECU>Settings>Local I/O**. By default, RDM is disabled. To enable, click in the box to the right of the RDM label.



[About] Library Data

A **{Library Data}** button has been added to the About Channel display. This button is also available in the About Address display.

{Library Data} displays information found in the fixture library such as:

- » Revision Number
- » Release Date
- » Alternate Names
- » Usage Notes

Effect List Navigation

Using the **[Next]/ [Last]** keys will now only move between effects in the effect list display. To navigate the effect editor, you will need to use the page arrow keys.

You can use **[Page ◀]** or **[Page ▶]** when in the effect list display to begin navigating in the effect editor. This only works for step or absolute effects. You can press **[Escape]** to return focus to the effect list display.

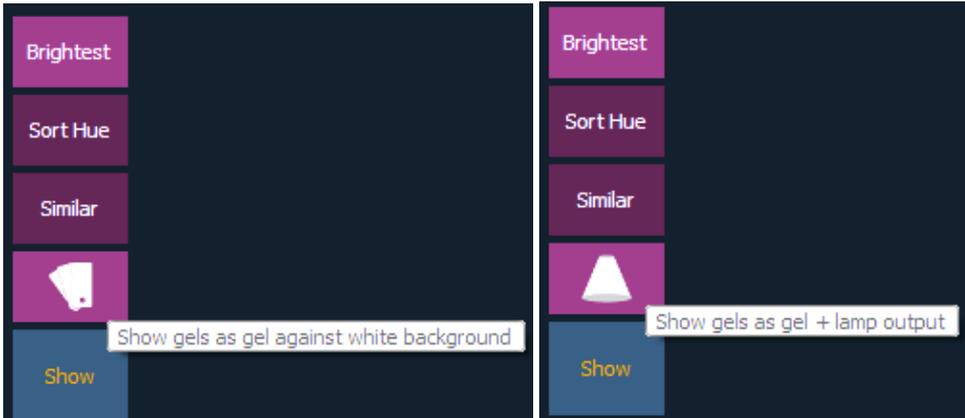
+ After Color Path

When multiple channels are selected that have different color paths assigned to them, a + will display by the color path name in the color path preview bar.



Show Gels

Two new options have been added to the gel picker. You can either select **{Show Gels as Gel Against White Background}** or **{Show Gels as Gel + Lamp Output}**. The button toggles between the two options.



- » **{Show Gels as Gel Against White Background}** displays the raw gel color as it would look against a white background.
- » **{Show Gels as Gel + Lamp Output}** displays the gel swatch color as if it was being used with a tungsten lamp.

Double Tap {Address} for Patch

Double tapping the {Address} softkey will now open the Patch display on Ion.

Artnet and sACN Offset Displayed

The Artnet and sACN offset will display in Patch if they are above 0.



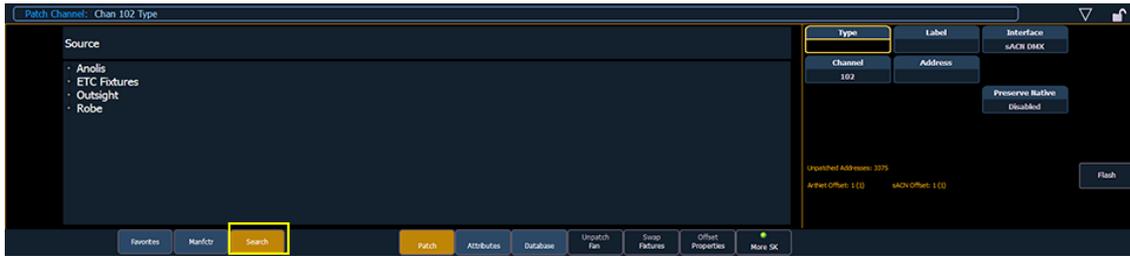
Move To

Changes have been made to how **Move To** works in Patch.

- » **[1] [Copy To] [Copy To] [2]** - moves channel 1's data to channel 2. Channel 2's data is replaced by channel 1's. Channel 1 is unpatched.
- » **[1][Copy To] [Copy To] [2][Part][2]** - creates a part 2 for channel 2 and moves channel 1's data to the new part. Channel 2's data remains in part 1. Channel 1 is unpatched.

Search

A search option has been added to the patch fixture library.



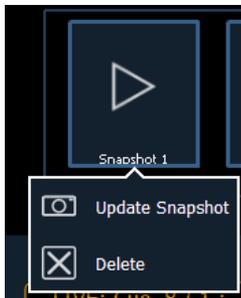
Press **{Search}** to open the search window. You can search by manufacturer name, fixture name, part of a name (example shown in the above screenshot), and by DMX footprint. You can also navigate the list as you would the browser.

For example, if you searched for 31, you would see all of the fixtures that have a DMX footprint of 31.

Double clicking on a fixture name will patch it.

Updating a Single Monitor Snapshot

A single monitor snapshot can be updated or deleted by right clicking on its icon in the Snapshot area of the Display Controls screen.



Color Coding of Direct Selects

The direct selects are now color coded.



The colors used are:

- » Channels - Blue
- » Groups - Slate
- » Intensity Palettes - Yellow
- » Focus Palettes - Green
- » Color Palettes - Gray (A color swatch will display in the lower left hand corner if enabled in the direct selects configuration menu.)
- » Beam Palettes - Royal Blue
- » Presets - Aqua
- » Macros - Brown
- » Effects - Purple
- » Snapshots - Red
- » Magic Sheets - Magenta

When the direct select is chosen and on the command line, it will have a gold border around it. If content is available for selected channels, the tile is highlighted. An unrecorded direct select will have a dark background with dark gray text.



Note: To adjust the brightness of the direct selects, use the Color Brightness slider in Setup. When the slider is set to 0, the color coding is removed. See [Color Brightness \(below\)](#) for more information.

Color Brightness

You can adjust the brightness of the color coding and color swatch used for the Direct Selects. This is done by going to **Setup>Desk Settings>Brightness Settings**. Use the slider for Color Brightness to adjust the color coding of the direct select and the color palette direct select color swatch's brightness.

If the slider is set to 0, the color coding for the direct selects is removed.

Facepanel Shortcuts

Overview

The following is a list of button pushes: single, maintained, or combined. It is highly recommended that you read and familiarize yourself with this list. For keyboard shortcuts, see [Eos Family Hotkeys \(on page 9\)](#) and [Element Hotkeys \(on page 11\)](#).

Displays

- » **[Data]** (maintained press) - toggles the display to show data living under referenced data. Keep **[Data]** depressed to page.
- » **[Shift] + [Data]** - locks the display to the absolute data display.
- » **[Time]** (maintained press) - toggles the display to show discrete timing. Keep **[Time]** depressed to page.
- » **[Shift] + [Time]** - locks the display to discrete time display.
- » **[Data] + [Focus Encoder Page] / [Color Encoder Page] etc** - to expand/suppress categories on displays (Ion)
- » **[Data] + [Parameter Tiles]** - to suppress/display individual parameters from the display when not in summary view (Ion)
- » **[Params] + [Focus] / [Color] / [Beam]** - to expand/suppress categories on displays (Ti/Eos/ Gio)
- » **[Params] + Parameter Tiles** - to suppress/display individual parameters from the display when not in summary view (Ti/Eos/Gio)
- » **[Displays] + [Level Wheel]** - dim the Littlelites or backlighting/LCDs (as selected by the user). **[Browser]** button on Element
- » **[Displays] [Displays]** - resets the CIA to the browser
- » **[Shift] + [Left], [Shift] + [Right]** - move columns
- » **[Shift] + [Up], [Shift] + [Down], [Shift] + [Level Wheel]** - resize columns
- » **[Shift] + [Path]/{Path}** - toggles the display to show values behind referenced data
- » **[Shift] + [Select]** - reset Display Columns

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- » **[Shift] + [Tab]** - clear all tabs on the current monitor (but keep locked frames) (Does not clear tab 1 and 2)
- » **[Shift] + [Tab] [Tab]** - clear all tabs on all monitors (but keep locked frames) (Does not clear tab 1 and 2)
- » **[Shift] + [Tab] [Tab] [Tab]** - clear all tabs on all monitors (including locked frames) (does not clear tab 1 and 2)
- » **[Shift] + [Label]** (maintained press) - toggles the display between default view of referenced data and alternate view. Keep Shift depressed to page.
- » **[Shift] + [Live/Blind]** - advances the displays to the next instance of live or blind
- » **[Live]** (when already in live) - resyncs the selected cue to the most recently activated cue
- » **[Blind]** (when already in blind) - resyncs the selected cue to the live selected cue (when blind cue has been changed or when preserve blind cue has been enabled).
- » **[Flexi] + [Time]** - to invoke flexi time view on displays
- » **[Format] + [Level Wheel]** - zooms the display in focus
- » **Left Mouse Button + Scroll** - zooms the display in focus on a PC
- » **Scroll with two fingers** - zooms the display in focus on a Mac
- » **[Tab] + [Up/Down Arrow]** - cycle workspaces
- » **[Tab] + [Left/Right Arrow]** - move displays
- » **[Tab] + [number]** - open or focus specific displays

Facepanel

- » **[Shift] + [Escape]** - to lock and unlock face panel
- » **Encoder Paging Keys + [Number]** - pages to the desired encoder control page
- » **[Escape] + Encoder Paging Keys** - locks the encoders. Press any encoder page button to unlock.
- » **[Flexi] + Encoder Paging Key** - to invoke flexi encoder states
- » **[Fader Controls] + [Bump Button]** - select a fader page on wings
- » **[Fader Page] + Rate Wheel** - rolls the selected fader page (Ti/Eos/Gio)
- » **[Fader Page] + [number]** - select a fader page on integral faders (Ti/Eos/Gio)
- » **[Fader Page]** - increments the fader page by (Ti/Eos/Gio)
- » **[Shift] + [Fader Page]** - decrements the fader page by 1 (Ti/Eos/Gio)
- » **[Off] + [Load]** - releases control of content, restoring to background and leave cue list with pending cue in tact
- » **[Release] + [Load]** - releases control of content, restoring to background, and resets cue list to top
- » **[Shift] + [Go] or [Shift] + [Back]** - cuts the pending cue or the previous cue
- » **[Shift] + [Load]** - to remove content from a fader

Operations

- » **[At] [Enter]** - removes move information from selected channel/parameters.
- » **[At] [At]** - set to Level (as defined in Setup).
- » **[Color] (Encoder page key) + Encoder Movement** - hold Color Point while adjusting parameters
- » **[Copy To] [Copy to]** - posts Move To on the command line.
- » **[Full] [Full]** - sets selected channels intensity to "full" and self terminates
- » **[Label] [Label]** - appended to a record target command, clears the current label, this includes show file labels
- » **[Recall From] [Recall From]** - posts Recall From Cue to the command line
- » **[Record] [Record]** - posts Record Only to the command line.

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- » **[Select Active] [Select Active]** - Select Active minus submaster contributions
- » **[Shift] + [Select Active]** - posts Select Non-Sub Active
- » **[Select Last]** - repeats last command line, unterminated; does a loop of last five commands
- » **[Shift] + [At]** - recalls last channel(s) and parameters without terminating; does a loop of last five commands
- » **[Shift] + [Enter]** - reselects the last command and leaves it unterminated; does a loop of last five commands
- » **[Shift] + [Block]** - posts Intensity Block to the command line
- » **[Shift] + [Clear]** - clears the command line
- » **[Shift] + [Delay]** - posts follow
- » **[Shift] + Encoder Paging Key** - posts the category to the command line. For beam subcategories, press Image, Form or Shutter twice to post Beam. (Ion/Gio)
- » **[Shift] + Encoder Movement** - accesses fine mode
- » **[Shift] + Encoder Toggle** - posts the parameter to the command line (Ion)
- » **[Shift] + Gel Tile** - cycles through three modes of Brightness
- » **[Shift] + [Full]** or **[Shift] + [Out]** - flash On or Flash Out
- » **[Shift] + [+]** or **[Shift] + [-]** - +% or -%
- » **[Shift] + [Highlight]** - appends highlight to the current channel selection.
- » **[Shift] + [Parameter]** - from the encoder controls, posts the parameter to the command line.
- » **[Shift] + [Select Last]** - posts additional channel selection options to the softkeys
- » **[Shift] + [Sneak]** - makes manual data unmanual.
- » **[Shift] + [Update]** - shortcut to Save
- » **[Shift] + restore manual channel faders** - reset faders to zero without asserting control.
- » **[Shift] + [Direct Select]** - posts DS to the command line without terminating
- » **[Sneak] [Sneak]** - releases NPs of selected channels and self terminates
- » **[Timing Disable] + [Go]** or **+ [Back]** - cuts the next cue or cuts the last cue
- » **[Thru] [Thru] - [Thru]** command accesses only channels displayed in the current flexi-state (unless the range specified is NOT in the current display). **[Thru] [Thru]** selects the range regardless of the flexi mode.
- » **[Trace] [Trace]** - forces a previously inactive light to track its new intensity setting backwards
- » **[Undo]** - clears an unterminated command line. Otherwise opens undo controls
- » **[Update] + [Sub Bump]** - to update a specific submaster
- » **[n] [At] [/] [/] [m] [Enter]** - sets direct DMX value (m) for channel (n).
- » **[Shift] + [Delay] [Delay]** - posts hang to the command line

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Eos Family Hotkeys

To enable Eos functions on Mac Function keys:

- » Open Systems Preferences
- » Go into the Keyboard section
- » Enable the “Use all F1, F2, etc... keys as standard function keys” setting.



Note: Some international keyboards require “Use Shift Key as Eos Shift” to be disabled in the General section of the ECU Settings. Use Z as shift to access shortcut functions in these cases.

Console Key	PC	Console Key	PC	Console Key	PC
Shortcut List	;	Capture	Control Alt P		Control 3
	?			Focus Filter	Control F
0	0	Clear	Backspace	Focus Palette	Alt F
1	1	Clear Command Line	Shift Backspace	Follow/Hang	Shift D
2	2		Control Alt Backspace		Control Alt D
3	3	Color Filter	Control C	Format	F4
4	4	Color Palette	Alt C		Control 4
5	5	Color Path	Control Alt W	(Scroller) Frame	Control Alt C
6	6	Copy To	C	Freeze	Control Alt F
7	7	Cue	Q	Full	F
8	8	Cue Only/Track	X	Go	Spacebar
9	9	Data	Control D	Go To Cue	Control G
. (decimal)	. (decimal)	Data Mode	Control Shift D	Go to Cue Zero	Control Alt G
- (minus)	- (minus)	Delay	D	Group	G
+(plus)	=	Delete	Delete	Help	Alt /
	+	Delete (Mac)	Fn Delete	Highlight	\
+%	Shift =	Displays	F9		Control Alt H
	Control Alt =		Control 9	Home	Home
+% (Mac)	Shift Fn Up Arrow	Effect	Alt E		Control H
-%	Shift -	Effects Softkeys	Alt Shift E	Home (Mac)	Fn Left Arrow
	Control Alt -	Encoder Display (Gio)	Control Alt \	Intensity Block	Shift B
-% (Mac)	Shift Fn Down Arrow	Encoder Page Color^	Control Alt [		Control Alt B
/	/	Encoder Page Focus^	Control Alt ,	Intensity Filter	Control I
About	Y	Encoder Page Form^	Control Alt ;	Intensity Palette	Alt I
Address/Dimmer	Alt A	Encoder Page Image^	Control Alt]	Label/Note	L
All NPs	Control N	Encoder Page Intensity^	Alt .	Last	Page Up
Assert	Control W	Encoder Page Shutter^	Alt ,		Control ,
Assert (Playback)	Control Alt A	Enter	Enter	Last (Mac)	Fn Up Arrow
At	A	Escape	Escape	Learn	Alt L
	@	Expand	F5	Level	V
	*		Control 5	Live	F1
Beam Filter	Control B	Fader Pages	Control P		Control 1
Beam Palette	Alt B	Fan	W	Load	Control Alt L
Blind	F2	FlexiChannel	F3	Macro	M
	Control 2			Macro 801*	Control Alt 1
Block	B			Macro 802*	Control Alt 2

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Console Key	PC	Console Key	PC	Console Key	PC
Macro 803*	Control Alt 3	Record	R	Update	U
Macro 804*	Control Alt 4	RecordOnly	Control R	Virtual Keyboard	Control K
Macro 805*	Control Alt 5	Release	Control Alt S	Workspace	lor l
Macro 806*	Control Alt 6	Rem Dim	H		
Macro 807*	Control Alt 7	Scroll Lock	F6	Shell Shortcut	
Macro 808*	Control Alt 8		Control 6	Shell Key	PC
Macro 809*	Control Alt 9	Select	Control Enter	0	0
Macro 810*	Control Alt 0	Select Active	Control A	1	1
Magic Sheet	Alt M	Select Last	Control L	2	2
Manual Override	Control Alt M	Select Manual	Control M	3	3
	Control Alt N	Setup	Alt S	4	4
Mark	K	Shift	Z	5	5
Mirror, Start	Alt F1	Snapshot	Control S	6	6
Mirror, Stop	Alt F2	Sneak	N	7	7
ML Controls	F7	Softkey 1	Alt 1	8	8
	Control 7	Softkey 2	Alt 2	9	9
More Softkeys	Alt 7	Softkey 3	Alt 3	. (decimal)	. (decimal)
Next	Page Down	Softkey 4	Alt 4	- (minus)	- (minus)
	Control .	Softkey 5	Alt 5	+ (plus)	=
Next (Mac)	Fn Down Arrow	Softkey 6	Alt 6	/	/
Off	Control Alt O	Spacebar Disable	Alt G	Arrow, Down	Arrow, Down
Offset	Control O	Stop/Back	Control Spacebar	Arrow, Left	Arrow, Left
Out	O		Control Alt Q	Arrow, Right	Arrow, Right
Page Left	Left Arrow	Stop Effect	Control Alt E	Arrow, Up	Arrow, Up
Page Right	Right Arrow		Control Alt K	Back	Esc
Page Up	Up Arrow	Submaster	S	Clear	Backspace
Page Down	Down Arrow	Tab	Tab	Delete	Delete
Parameters (Display)	Control D	Time	I	Enter	Enter
Park	Alt K	Time (Displays)	Shift I	Escape	Esc
Part	P		Control Alt I	Select	Return
Patch	::	Timing Disable	Control Alt T		
Pixelmap	Alt X	Toggle Hotkeys	F8		
Preset	Alt P		Control 8		
Query	Control Q	Trace	J		
Rate	Control Alt R	Thru	T		
Recall From	E	Undo	Control X		

*Some Shortcut Key combinations are not available on all physical keyboard layouts.

^Alternatively use Encoder Display + category to change the encoder pages.

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Eos Family v2.3.2

Element Hotkeys

To enable Eos functions on Mac Function keys:

- » Open Systems Preferences
- » Go into the Keyboard section
- » Enable the “Use all F1, F2, etc... keys as standard function keys” setting.



Note: Some international keyboards require “Use Shift Key as Eos Shift” to be disabled in the General section of the ECU Settings. Use Z as shift to access shortcut functions in these cases.

Console Key	PC	Console Key	PC	Console Key	PC
Shortcut List	;	Clear Command Line	Shift Backspace	Help	Alt /
	?		Control Alt Backspace	Home	Home
0	0	Color Filter	Control C		Control H
1	1	Color Palette	Alt C	Home (Mac)	Fn Left Arrow
2	2	Color Path	Control Alt W	Intensity Filter	Control I
3	3	Copy To	C	Intensity Palette	Alt I
4	4	Cue	Q	Label/Note	L
5	5	Cue Only/Track	X	Last	Page Up
6	6	Data	Control D		Control ,
7	7	Data Mode	Control Shift D	Last (Mac)	Fn Up Arrow
8	8	Delay	D	Learn	Alt L
9	9	Delete	Delete	Level	V
. (decimal)	. (decimal)	Delete (Mac)	Fn Delete	Live	F1
- (minus)	- (minus)	Displays	F9		Control 1
+(plus)	=		Control 9	Load	Control Alt L
+%	+ Shift =	Effect	Alt E	Macro	M
	Control Alt =	Enter	Enter	Macro 801*	Control Alt 1
+% (Mac)	Shift Fn Up Arrow	Escape	Escape	Macro 802*	Control Alt 2
-%	Shift -	Expand	F5	Macro 803*	Control Alt 3
	Control Alt -		Control 5	Macro 804*	Control Alt 4
-% (Mac)	Shift Fn Down Arrow			Macro 805*	Control Alt 5
/	/	FlexiChannel	F3	Macro 806*	Control Alt 6
About	Y		Control 3	Macro 807*	Control Alt 7
Address/Dimmer	Alt A	Focus Filter	Control F	Macro 808*	Control Alt 8
All NPs	Control N	Focus Palette	Alt F	Macro 809*	Control Alt 9
At	A	Follow	Shift D	Macro 810*	Control Alt 0
	@		Control Alt D	Magic Sheet	Alt M
	*	Format	F4	Manual Override	Control Alt M
Beam Filter	Control B		Control 4		Control Alt N
Beam Palette	Alt B	(Scroller) Frame	Control Alt C	Mirror, Start	Alt F1
Blind	F2	Full	F	Mirror, Stop	Alt F2
	Control 2	Go	Spacebar	ML Controls	F7
Block	B	Go To Cue	Control G		Control 7
Capture	Control Alt P	Go to Cue Zero	Control Alt G	More Softkeys	Alt 7
Clear	Backspace	Group	G	Next	Page Down
					Control .

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Console Key	PC	Console Key	PC	Shell Shortcut	
Next (Mac)	Fn Down Arrow	Snapshot	Control S	Shell Key	PC
Offset	Control O	Sneak	N	0	0
Out	O	Softkey 1	Alt 1	1	1
Page Left	Left Arrow	Softkey 2	Alt 2	2	2
Page Right	Right Arrow	Softkey 3	Alt 3	3	3
Page Up	Up Arrow	Softkey 4	Alt 4	4	4
Page Down	Down Arrow	Softkey 5	Alt 5	5	5
Parameters(Display)	Control D	Softkey 6	Alt 6	6	6
Park	Alt K	Spacebar Disable	Alt G	7	7
Part	P	Stop/Back	Control Spacebar	8	8
Patch	::		Control Alt Q	9	9
Rate	Control Alt R	Stop Effect	Control Alt E	. (decimal)	. (decimal)
Recall From	E		Control Alt K	- (minus)	- (minus)
Record	R	Submaster	S	+ (plus)	=
RecordOnly	Control R	Tab	Tab	/	/
Release	Control Alt S	Time	I	Arrow, Down	Arrow, Down
Rem Dim	H	Timing Disable	Control Alt T	Arrow, Left	Arrow, Left
Scroll Lock	F6	Toggle Hotkeys	F8	Arrow, Right	Arrow, Right
	Control 6		Control 8	Arrow, Up	Arrow, Up
Select	Control Enter	Thru	T	Back	Esc
Select Active	Control A	Undo	Control X	Clear	Backspace
Select Last	Control L	Update	U	Delete	Delete
Select Manual	Control M	Virtual Keyboard	Control K	Enter	Enter
Setup	Alt S	Workspace	] or [	Escape	Esc
Shift	Z			Select	Return

*Some Shortcut Key combinations are not available on all physical keyboard layouts.

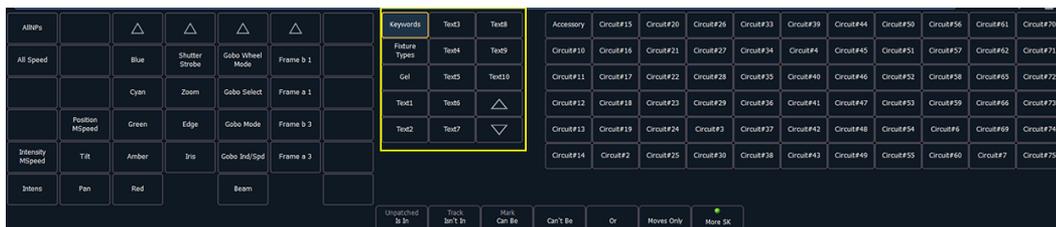
^Alternatively use Encoder Display + category to change the encoder pages.

Welcome

This document is supplemental to information in the Eos Titanium, Eos, and Gio v2.0 Operations Manual, Ion v2.0 Operations Manual, and Element v2.1 User Manual, and should be used in conjunction with it.

Additions to Query

Query now has the following buttons:



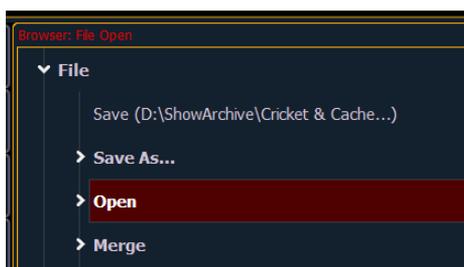
- » **{Keywords}** - displays buttons for all the text used in the text 1-10 fields and for all of the default keywords in Patch.
- » **{Fixture Types}** - displays buttons for all of the fixture types used in the current show file.
- » **{Gel}** - displays all of the gels used in the current show file.
- » **{Text 1} - {Text 10}** - displays only the text used in that text field.
- » **Up and Down Arrows** - allows paging of the lists.

See also [Renaming Text Fields in Patch \(page 17\)](#) for more information.

Browser Color Coding

The following color coding for selected items has been added to the browser:

- » Save - green
- » Save As - green
- » Open - red
- » Merge - yellow
- » New -red
- » Clear -red

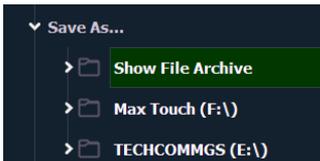


Additional Browser Changes

Previous versions of a showfile will be displayed in dark gray text. To see previous versions of a showfile, you must click on the arrow to the left of the showfile name or use **[Page ▶]**.



File folders now display with a folder icon beside their name.



Channels in Use

A Channels in Use display has been added. It displays the following information for each channel:

- » Number of cue lists the channel appears in.
- » Number of cues the channel appears in.
- » Number of cue moves from zero.
- » Number of submasters that channel appears in.
- » Maximum channel level

To open the Channels in Use display, click on the **{CIU}** icon in the home screen or press **[Tab] + [3][2]**.



Playback Status Display FX Column

Effects are no longer displayed in the External Links column, instead they will be shown in the FX column.

List 1		Timing																				
Cue	Int Up	Int Down	Focus	Color	Beam	Dur	M	B	A	P	A	M	F	V	Fw/Hg	Link	Loop	Curve	Rate	Label	FX	Ext Links
1		5	5	5	5	2.5							L						200		1	Q6 / 1
2		4	8			8							b		2/1					scene1		

Editing Labels

The page arrow keys on the console or an external alphanumeric keyboard can be used to move the cursor within a label to aid in editing.

- » **[Page ▲]** - takes the cursor to the beginning of the label.
- » **[Page ▼]** - takes the cursor to the end of the label.
- » **[Page ◀]** - moves the cursor to the left.
- » **[Page ▶]** - moves the cursor to the right.

Virtual Keyboard

The virtual keyboard displays the alphanumeric keyboard shortcut for that hardkey in the lower right hand corner.

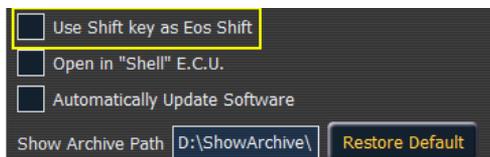
The abbreviations are:

- » **Ca** - CTRL + ALT
- » **S** - SHIFT
- » **C** - CTRL
- » **A** - ALT



Use Shift As Eos Shift

In the ECU, **{Use Shift as Eos Shift}** allows the SHIFT key on an alphanumeric keyboard to be used as the console's **[Shift]** key. If not selected, the Z key on an alphanumeric keyboard will function as the **[Shift]** key.



Note: With 2.3, the Hotkey mapping has changed. Please see [Eos Family Hotkeys \(page 22\)](#) and [Element Hotkeys \(page 24\)](#).

Effect Attributes

Two new effect attributes are now available that affect how effects run.

Those attributes are:

- » **Continuous Run** - the effect will keep running until there is a stop effect command. By default, **{Continuous Run}** is disabled for all step and absolute effects. It is enabled by default for relative effects. See [Stop Effects on page 5](#) for more information.
- » **Repeat on Go** - previously, effects with a duration or number of cycles would re-fire when a new cue was recorded. Now effects will not restart unless **{Repeat on Go}** is used.

When an effect with duration is running in a cue, the effect will display in light blue while it is running and dark blue when it has finished. This is only displayed in the Live Summary View.



Light Blue When Effect is Running	Dark Blue When Effect has Finished
--	---

Effect Background Value Modification

For Step and Absolute effects, you can use **[+]**, **[-]**, and **[/]** to adjust the background value .



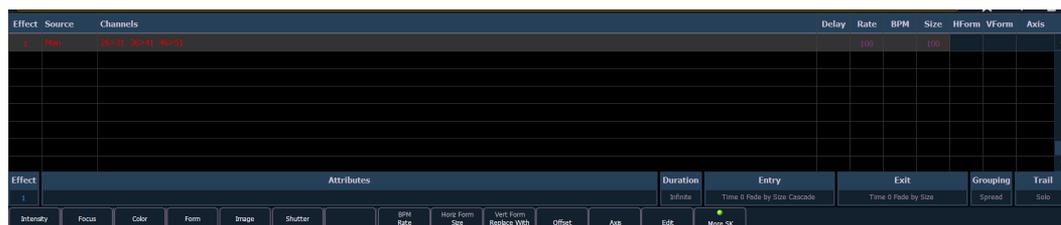
Note: When using **[-]**, you will need to preface the command with **[+]** if you want to remove from the current value.

For Example:

- » Effect 1 is a step effect with the on state set to 100 and the off state set to - 50% for all steps. To set the step off state to -50%, you would use the following syntax **[Effect][1] [Step] [1] {Offstate} [+] [-] [/] [5] <0> [Enter]**. If the channels in the effect have a background value of 50, the off state for each step would be 25.
- » Effect 2 is an absolute effect. To set a level at + 20 of the background, you would use the following syntax, **[Effect][2] {Action} [1] {Level} [+] [2]<0> [Enter]**. If the channels in the effect have a background value of 50, the level 1 in the effect would be at 70.

Effect Status Display

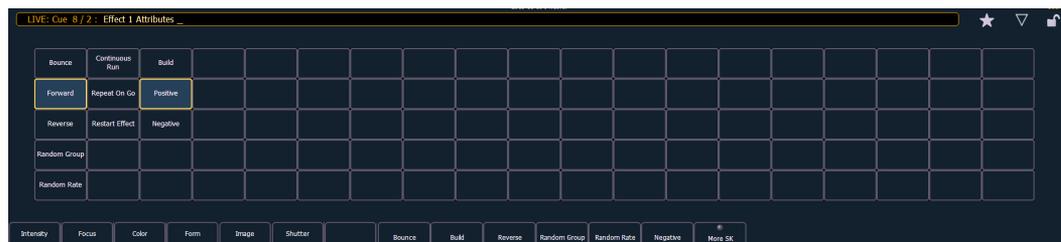
The properties of an effect that can be modified at a cue or sub level have been extended. The new properties are displayed at the bottom of the Effect Status display and in the channel effects screen (which is access by pressing **[Shift] + [Effect]**).



Several color indicators are used in the Effect Status Display. Those colors and their meanings are:

- » Grey - property is drawn directly from the effect.
- » Red - property has been manually modified but not stored.
- » Blue - property is an override to the saved effect.
- » Magenta - property is tracking from a previous cue.

From the Effect Attribute Override display, you can access most of the same properties as those found in the Effect Editor. This display allows you to make modifications to properties, and store those modifications in a cue or submaster. Click on a column to make changes from a list of available options.



A new effect attribute, **{Restart Effect}**, has been added that can only be accessed from this display. When enabled, **{Restart Effect}** will cause an effect to restart whenever the cue is fired. This attribute is applied to the cue that the effect is stored in and not in the effect itself.



Note: **{Repeat on Go}** is similar to **{Restart Effect}** but it is applied to the effect. For more information on **{Repeat on Go}**, see [Effect Attributes on page 3](#).

Effects In Presets

Effects can be stored in a preset, and those presets can be used to create submasters and cues. However, the effect's data is only copied to the submaster or cue, it is no longer referenced through the preset.



Note: If used with submasters and cues, the data is not referenced. So if changes are made to the effect in the preset, the effect saved to the submasters and cues will remain unchanged.

The preset list display has a new column for effects.

Query and Group Effect

You can use **[Query] [Effect] [n]**, **[Query] [Effect]**, and **[Group] [Effect] [n]** to select the channels currently running in the selected effect.

Using **[Query]** will select the channels in numeric order. **[Group]** will select the channels in the order that they were originally selected.

[Query] [Effect] will select all channels currently running effects.

For Example:

» **[3][1] + [2][6] + [3][0] + [2][7] + [2][9] + [2][8] [Effect] [1] [Enter]**

Using **[Query] [Effect] [1]** will select the channels currently running effect 1. Using **[Next]**, the channels will be selected in numeric order starting with channel 26.

Using **[Group] [Effect] [1]** will select the channels currently running effect 1. However, pressing **[Next]**, the channels will be selected in the order they were originally selected. In this example, channel 31 would be first, then channel 26.



Note: **[Group] [Effect] [n]** was previously used as an alternate to **[Recall From]**. This is no longer the case.

Replace With

{Replace With} allows you to replace an effect with another one. All overrides will be preserved.

» **[Effect] [1] {Replace With} <Effect> [2]** - all channels that were running effect 1 will now be running effect 2.

Size for Step and Absolute Effects

Size is now an option for Step and Absolute effects.

For Example:

Effect 1 is a step effect with the On State set to 50 and the Off State set to 10. If Size is set to 50, the On State will be set to 50% of 50 and the Off State will be 50% of 10. So On would be 25 and Off would be 5.

Stop Effects

A **[Stop Effect]/{Stop Effect}** command can now be assigned to a list of channels in a cue without an effect tracking into it or to a list of channels in a submaster.

- » **<channel> [1] [Stop Effect]/{Stop Effect} [Enter]** - will create a stop effect instruction for all selected parameters, if there isn't an effect running on any of the parameters.
- » **<channel> [1] [Effect] [Enter]** - will only stop the currently running effect.
- » **[Effect] [0] [Enter]** - will place a stop all flag.

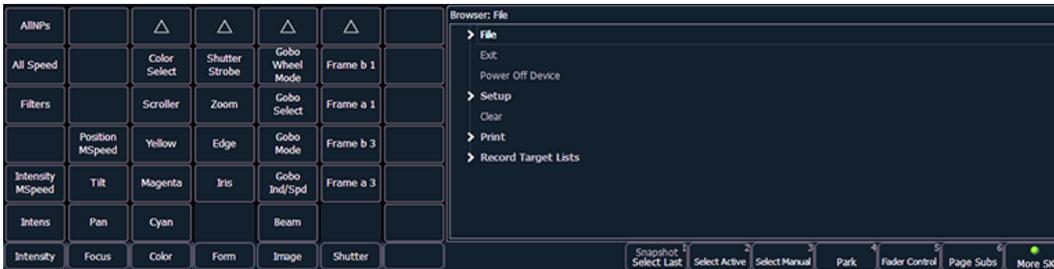
Manual Control of Non-Intensity Parameters

On Element, non-intensity parameters can now be set by using either the ML Controls or the buttons in the central information area (CIA).

Parameter Display

The parameter display in the CIA is populated with only those parameters that are found in the patched devices. As channels are selected, the parameter display will change to show only parameters relevant to the selected channels.

The parameters are divided into the following categories: Intensity, Focus, Color and Beam. Each parameter category is represented with buttons in the parameter tiles. These buttons allow you to select the entire collection of all parameters within that category. You can also select a single parameter from a category using that parameter's touchbutton in the parameter display.



Within the CIA, in the upper left corner, notice the **{All NPs}** button. When pressed, this collects all non-intensity parameters for further editing.

Some examples of using parameter touchbuttons are:

- » **[1] {Iris} [5] [Enter]** - Places the iris parameter of channel 1 at 50%.
- » **[Group] [4] {Zoom} {Edge} [Out] [Enter]** - Sends any zoom and edge values for all fixtures in group 4 to 0%.
- » **[1] [Thru] [3] {All Speed} [At] [2][5][Enter]** - Sets all the available speed parameters for channels 1 through 3 to 25.

Setting Parameters with the Keypad

When the CIA is placed in parameter mode, all parameters of selected channels may be given numeric values through the keypad.

When no channels are selected, the CIA shows all of the parameters that are available in the lighting system. When channels are selected, the CIA condenses to show only the parameters that are appropriate to the selection set. If channels are selected that have different device types, such as spot and wash lights, the CIA will show all of the available parameters. Parameters that are not available to all channels are grayed out.

Using **[At] [/] [/]** will place the direct DMX value on the command line. For example, **[1] [At] [/] [/] [2][3][9] [Enter]** would put channel 1 at DMX value 239.

The following examples illustrate how to set parameter values with the keypad:

- » **[5] {Iris} [5] {Zoom} [6] [5] {Edge} [5] [Enter]** - sets channel 5 to an iris value of 50%, a zoom value of 65%, and an edge value of 50%.

Adjusting Parameters Using + and -

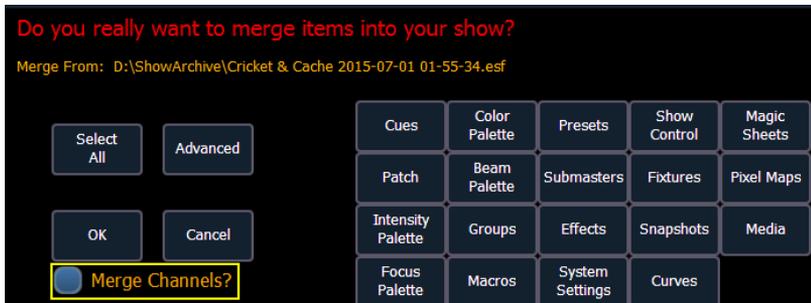
[+] and **[-]** can be used to adjust parameters from the command line. When using **[-]**, you will need to preface the command with **[+]** if you want to remove from the current value.

For Example:

- » [Channel List] {Pan} [1][0] - sets to 10 degrees.
- » [Channel List] {Pan} [+] [1][0] - adds 10 degrees.
- » [Channel List] {Pan} [-] [1][0] - sets to -10 degrees.
- » [Channel List] {Pan} [+] [-] [1][0] - removes 10 degrees.

Partial Show File Channel Merge

A new option has been added to Merge.



When Merge Channels is selected, channels from cues, submasters, groups, and other channel targets will be added to any existing channel targets of that same type.

With Merge Channels not selected, those channels will override any existing channels in the channel targets of the same type.

For Example:

In a show file 1, group 1 has channels 1 through 5. In show file 2, group 1 had channels 6-10. With Merge Channels and Groups selected for the merge, show file 2's group 1 will merge with show file 1's group 1. Group 1 will then have channels 1-10. If Merge Channels was not selected, group 1 would just have channels 6-10.



Note: It is important to remember that if the same channels exist in both show files, the data merging in will override the existing data for those channels.

Lightwright Import

Several changes were made to importing Lightwright files. Once a file has been selected for import, you will now have options for importing.



Merge and Overwrite

You can select to either merge the data with the current show file, or to overwrite the data in the current file. To do this, check the **{Overwrite}** box. Leaving this box unchecked will merge the data.

Starting and Ending Channel

You can select starting and ending channels for the import.

Mapping

You can map Eos patch fields to fields in the Lightwright file. Channel and Address must be mapped for the file import to work. Any other field can be set to ignore if desired. Once a Lightwright field has been mapped, it will display in grey in the dropdown menu. However, greyed out options can be selected again for placement in multiple fields.

Eos	Lightwright	Eos	Lightwright	Eos	Lightwright
Channel	Channel	Notes	<Ignore>	Text6	<Ignore>
Address	Address	"When, What, and Who Changed"	<Ignore>		
Type	Device Type	Accessory			
Fixture Type	<Ignore>	Address			
Label	Purpose	Bot			
Gel	Color	Channel			
		Circuit Name			
		Circuit Name & Circuit#			
		Circuit#			
		Color			

The text fields in the Patch display and database will rename based off of the Lightwright imported fields. See [Renaming Text Fields in Patch on page 17](#) for more information.



Note: Eos 2.3 does not currently support multiple gels per fixture from Lightwright.

Address Formats

Eos will accept multiple address formats for importing. Examples of those formats are **2/3**, **2.3**, **2,3**, **2-3**. Eos will convert all formats to n/n.

Device Mapping

Devices can also be mapped. Click **{Map Devices}** to open the following display.

Lightwright	Eos	Mapping	Link Devices	Unlink Devices
Device ETC Selador Desire D60 Lustr Light	<ul style="list-style-type: none"> <input type="checkbox"/> D60 DLght <input type="checkbox"/> D60 Fire <input type="checkbox"/> D60 Ice <input type="checkbox"/> D60 Lustr+ <input type="checkbox"/> D60 Studio <input type="checkbox"/> D60 Tungs <input type="checkbox"/> D60 Vivid <input type="checkbox"/> Lustr <input type="checkbox"/> Paletta <input type="checkbox"/> Pearl <input type="checkbox"/> Revolution Original 	<ul style="list-style-type: none"> Other Color Kinetics ColorBlast 12 -> ColorBlast 12 Cyc Electric -> Cyc Flood Martin Mac 700 Profile -> Mac 700 Profile Ext Robe Robin 300 LED Wash M3 -> Robin 300... S4 10° -> Dimmer Source Four 19° -> Profile Source Four 26° -> Profile Source Four 36° -> Profile Source Four Par WFL -> Parcan VL2000 Wash -> VL2000 Wash Enhanced 16... 		

Select the Lightwright device and the match from the Eos column. Multiple Lightwright devices can be selected at a time. Then click **{Link Devices}**. The link will appear in the Mapping column. To unlink a device, select it from the Mapping column, and then press **{Unlink Device}**.

Device mapping and import fields are saved with the show file.

MLA Added to Export Menu

An option for exporting to Moving Light Assistant (MLA) has been added to the Export menu, **Displays>File>Export>Moving Light Assistant**.

This will open the export screen in the CIA. From this screen, you can choose which aspects of the show file you want to export. By default all aspects are selected and will be exported. To withhold any show aspects from exporting, simply deselect them in the CIA by clicking on the respective button. Deselected show aspects will appear in black.



You can also choose to export specific portions of show aspects. To select this information, press the **{Advanced}** button. In the Advanced screen, all aspects are deselected (black) by default.

To stop the show file from being saved for export, press the **{Cancel}** button. If you are ready to save, press **{Ok}**. You will be prompted to name the file. A .csv file will be created.

Adding to the Current DMX Value

It is possible to set a channel's parameter levels with the DMX value by using **[/][/]**, which posts DMX to the command line.

» **[1 {Pan} [/][/] [2][5] [Enter]**

You can add or subtract from the DMX value by using **[+]** or **[-]**.

» **[1 {Pan} [/][/] [+] [5] [Enter]**

» **[1 {Pan} [/][/] [-] [7][5] [Enter]**

Discrete Time as a Percentage

Discrete times can be entered as a percentage of the cue time.

» **[2] [Time] [/] [5] [Enter]** sets the time for channel 2 to 50% of the cue time.

» **[2] [Focus] [/] [7][5] [Enter]** - sets the focus category time to 75%.

Most Recently Activated Cue

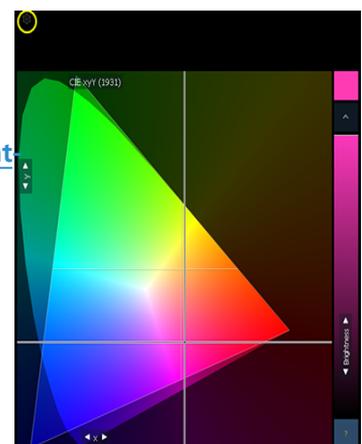
Use **[Cue] [n] [/] [Enter]** to select the most recently activated cue from that cuelist. If there is no active cue from that list, the first cue in the cuelist will be used.

Color Overview

In version 2.3, you will notice several major changes to working with color. These changes allow for a more complete control of color.

With the color picker open, you now have the choice between six different [Color Spaces \(page 10\)](#), a [Gel Picker \(page 11\)](#), [Color Path \(page 13\)](#), [Tinting Tools \(page 13\)](#), and [Spectrum Tools \(page 14\)](#).

These options are found by clicking on the display configuration tool (the gear icon) in the upper left corner of the color picker display.



Color Spaces

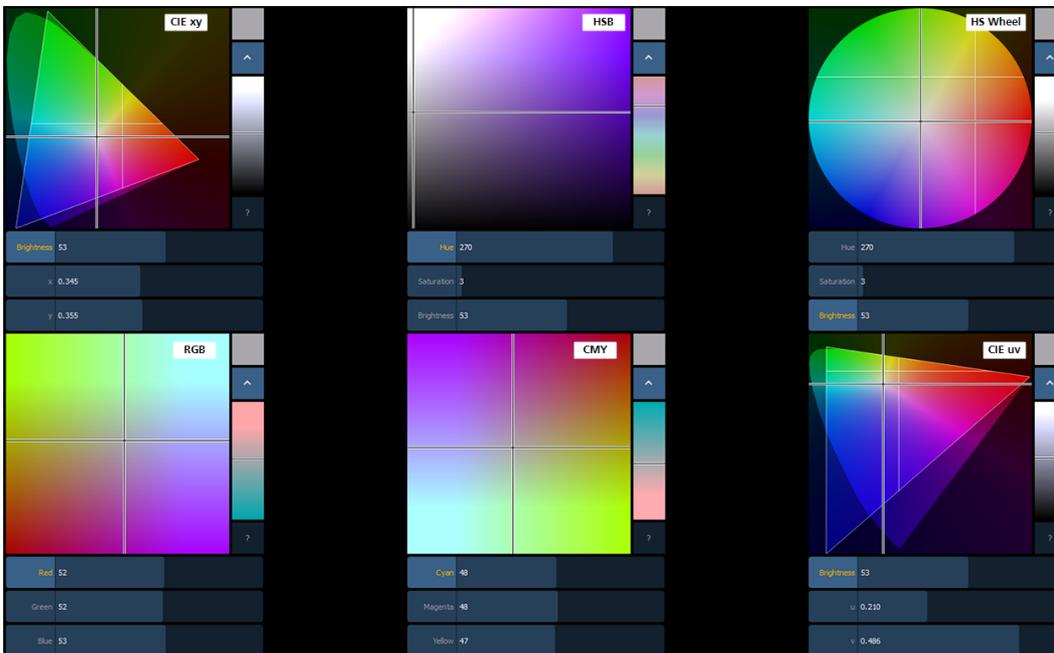
There are six color spaces that you can choose to work in. All of these spaces are connected. So it doesn't matter which space you wish to work in, the console will translate the information to work with your fixtures.

When the color picker is first opened, the CIE xy color space and the gel picker will open by default. You can select other color spaces and tools by clicking on the display configuration tool (the gear icon) in the upper left corner of the color picker display.



Note: Multiple color picker tabs with different color spaces can be opened at the same time. Multiple color spaces can be opened on the same tab.

The available color spaces are:



Note: When a fixture is in HS mode, the brightness control is not provided. Intensity controls the brightness.

For the CIE xy (CIE 1931) and CIE uv (CIE 1976), the triangle represents the RGB space as defined by the PLASA standard E1.54. Fixtures that comply to that standard can achieve any color within the triangle. The cone represents the color spectrum that we can see.

Controls

Each color space has three virtual encoders, a vertical encoder, a **{?}** button, and a **{^}** button.

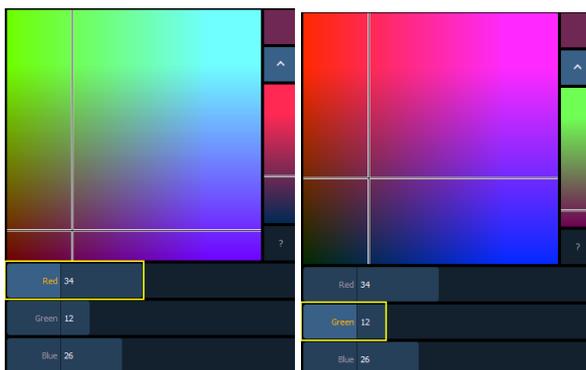
The encoders will change based on the color space selected. Double tapping in a virtual encoder will cause it to jump to the location of your finger. Pressing and holding will cause the encoder to fade toward your finger.

Tapping anywhere in the color space will cause the crosshair to move to that location. Press and hold, then move your finger to fade the crosshair toward that location.

The **{^}** button will create the brightest version of the selected color. Press the **{?}** button to display labels on all of the controls.



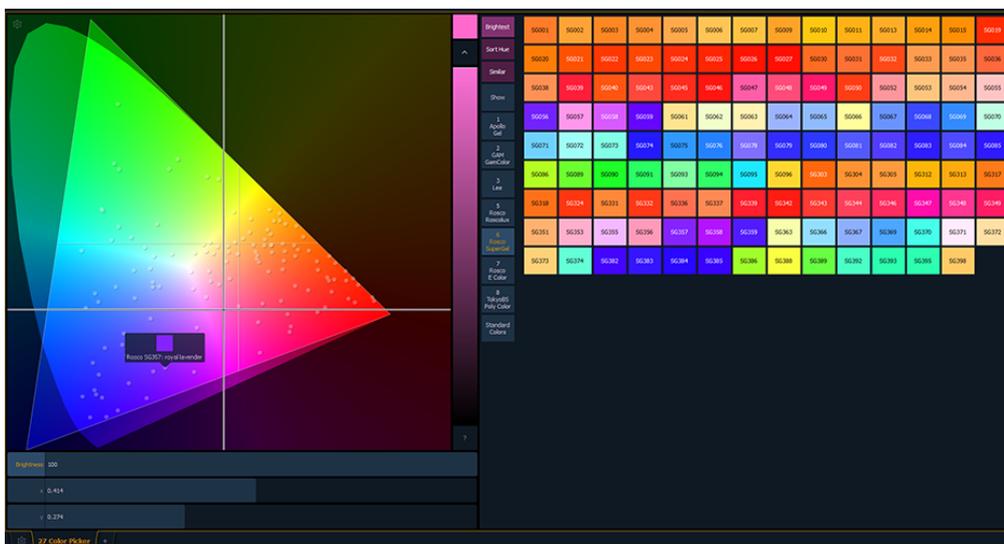
For the RGB and CMY color spaces, you can change which color control is on the vertical encoder. Touch the label of the virtual encoder to change which color control is located on the vertical encoder. In the following graphics, Red is on the vertical encoder in the first one and green is on the vertical encoder in the second one. This is also indicated by the highlighted encoder name.



For the HS Wheel and HSB color spaces, the vertical encoder is always brightness.

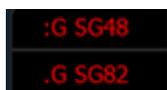
Gel Picker

Several changes have been made to the gel picker for working with the new [Color Spaces \(page 10\)](#). When the gel picker is opened up with a color space, there will be dots displayed on the color space. These dots represent the gels in the currently selected gel book. Hovering over a dot with a mouse will display the gel's name and a color swatch.



The following buttons are also available:

- » **{Brightest}** - determines the color match used. This is helpful when working with fixtures that have more than three color components, such as RGBA, RGBWm or ETC's fixtures. Pressing **{Brightest}** or **{Shift} +a** gel from the picker will cycle through the three modes.
 - » **{Brightest}** - matches to the brightest match of that chromaticity.
 - » **{Spectral}** - matches to the best spectral match chromaticity. However, this mode can remove a lot of the intensity. This is based off of a 575w long life Source Four[®].
 - » **{Hybrid}** - halfway between the brightest and the best spectral match.



In the channel display, a single dot shows best spectral match, 2 dots indicates hybrid, and no dot shows brightest.

- » **{Sort Hue}** - takes the selected gel library and sorts it by hue instead of by gel number.
- » **{Similar}** - will show gels that are in the same selected area of the color picker. Only gels in the same selected gel book will display. You can switch to another gel book though to discover gels in that area.
- » **{Show}** - displays all of the static gels in the show file. This populates from Patch.
- » **{Standard Colors}** - shows a range of White Point from 2700K to 6500K. Also shown are colors located around the triangle and variations of those colors at 25% increments.

Spectral	2700 K	2800 K	2900 K	3000 K	3100 K	3200 K	3300 K	3400 K	3500 K	3600 K	3700 K	3800 K	3900 K	4000 K
Sort Hue	4100 K	4200 K	4300 K	4400 K	4500 K	4600 K	4700 K	4800 K	4900 K	5000 K	5100 K	5200 K	5300 K	5400 K
Similar	5500 K	5600 K	5700 K	5800 K	5900 K	6000 K	6100 K	6200 K	6300 K	6400 K	6500 K	White	Red	Red 75%
Show	Red 50%	Red 25%	Orange	Orange 75%	Orange 50%	Orange 25%	Yellow	Yellow 75%	Yellow 50%	Yellow 25%	Lime	Lime 75%	Lime 50%	Lime 25%
1 Apollo Gel	Green	Green 75%	Green 50%	Green 25%	Mint	Mint 75%	Mint 50%	Mint 25%	Cyan	Cyan 75%	Cyan 50%	Cyan 25%	Azure	Azure 75%
2 Gold CamColor	Azure 50%	Azure 25%	Blue	Blue 75%	Blue 50%	Blue 25%	Purple	Purple 75%	Purple 50%	Purple 25%	Magenta	Magenta 75%	Magenta 50%	Magenta 25%
3 Lee	Pink	Pink 75%	Pink 50%	Pink 25%										
5 Rosco RoscoLux														
6 Rosco SuperGel														
7 Rosco Z Color														
8 Rosco Poly Color														
Standard Colors														

How the Gel Picker Affects Scroller and Color Wheel

When possible the Gel Picker will select the closest gel as defined in a scroller or color wheel.



Note: Some devices contain manufacturer specified gel mixes, and will only allow selection from the Gel Picker of the exact gels in their list.

In previous versions when using the Gel Picker, the channel display would show the gel. Now the channel display shows the frame number and the corresponding label that is defined for that frame.

Tinting Tools

The Tinting Tools option is found by clicking on the display configuration tool (the gear icon) in the upper left corner of the color picker display.

Tint allows you to easily adjust color regardless of the color space that you're working in.

You can increase or decrease the saturation and brightness. You can make a color warmer or cooler, and you can add or remove colors.



Color Path



Note: In version 2.3, color path is only applicable for additive mixing systems.

Color Path is a new option for controlling color fades between cues. By default, color fades happen in the native space of the fixture. If you want a fade that resembles a fade in a different color space, you can do that using color paths. There are eight preprogrammed color paths, and you can also record your own. Up to 1000 color paths are supported.

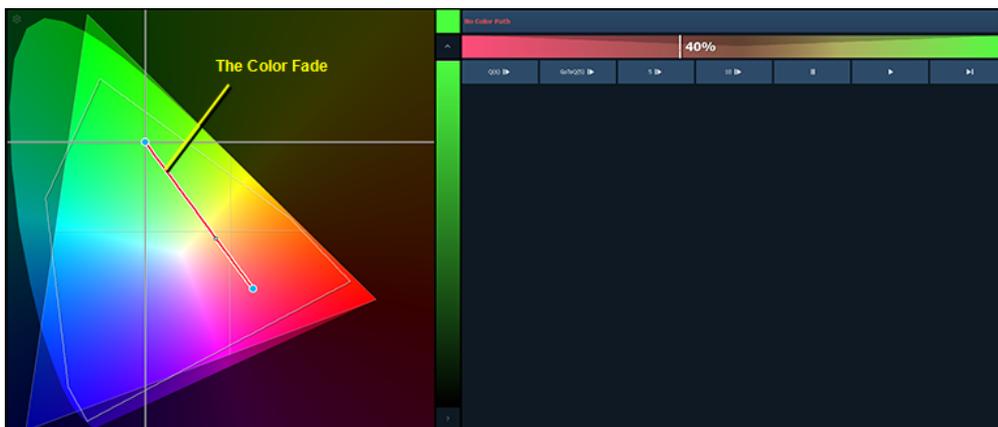
To open the color path display, click on the gear icon in the color picker display and select Fade. To open the color path list display, press **[Path] [Path]** or by pressing the **{Color Path}** icon in the home screen.

Color paths are selected either by clicking on the drop down above the color path or by using **[Path] / {Color Path} [n]**. Ion and Element users will need to use the **{Color Path}** softkey.



Note: Channels involved in the fade have to be selected before you can choose or modify a color path.

The color path display has a drop down list of the available paths, a color path preview bar, and control buttons. An indication line will display on the color space to show the color fade.

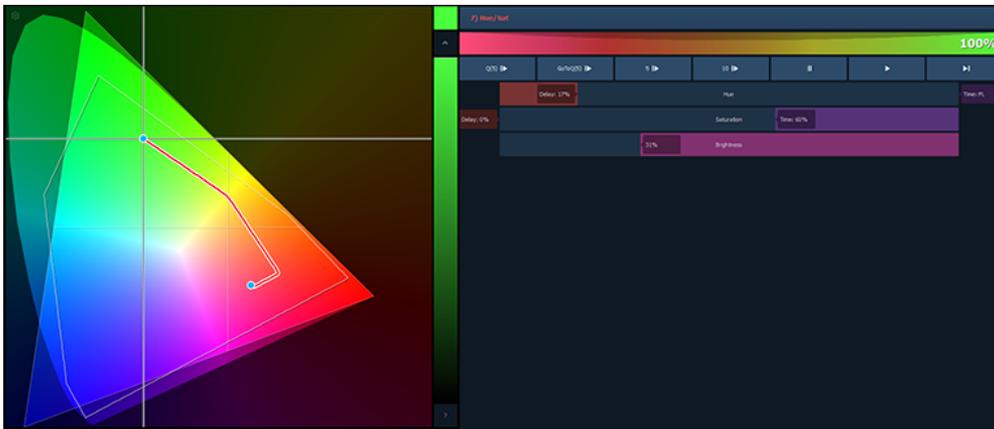


Available control buttons are:

- »  - replays the color fade using the cue time.
- »  - replays the color fade using the Go to Cue time from Setup.
- »  - replays the color fade in five seconds.
- »  - replays the color fade in ten seconds.
- »  - pauses the color fade.
- »  - plays / resumes the color fade.
- »  - skips to the end of the color fade.

You can also click on the color path preview bar to scrub to any point along the fade.

Additional controls may be available based on the color path selected. For example, Color Path 7 has additional controls for Hue, Saturation, and Brightness. You can move those controls to adjust the fade, and you'll see a representation of those changes in both the color path preview bar and in the color space.



Changes can be stored in the destination cue as absolute data by using **[Update]** or **[Record]**. When there's a change to the color path information, a red c will display next to the channel number and the color path's

name will display in red in the color path display. When that data has been saved, a blue c will display. The color path's name will also display in blue in the color path display.



You can save changes to a new color path by using **[Record] [Path] / {Color Path} [n]**. That data will then be referenced, and any changes made to that path will be used anytime that path is used. Press **[Shift] + [Path] / {Color Path}** to see the values behind the referenced data.

See [\[About\] Color Path on page 16](#) and [Color Path in Patch Attributes on page 17](#) for more information.

Spectrum Tools

The Spectrum option is found by clicking on the display configuration tool (the gear icon) in the upper left corner of the color picker display.

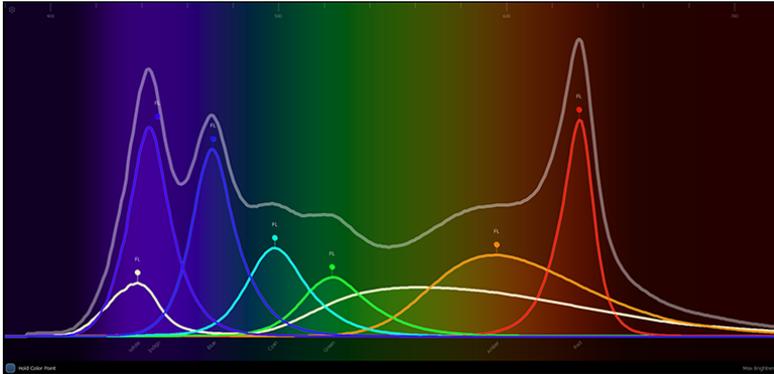
This option displays all the color parameters across the color spectrum, and allows for individual control of each parameter. Press a color point to move it.

This display is a good visual of what the fixture is outputting.

The following screenshot shows a 7 color fixture. This display will change based on the type of fixture being used.



Note: The grey line shows the composite color of the fixture. If multiple fixtures are selected, the grey line represents the first channel selected.



With the [Gel Picker \(page 11\)](#) open and a gel selected, a dotted line will appear in the Spectrum display. That line represents the selected gel.



{Hold Color Point} allows you to adjust individual emitters and the other emitters will automatically adjust to hold the color selected. If an emitter has been adjusted too far, a Limit Reached warning will appear. This can only be used with fixtures that have more than three color parameters.



If you are working outside of this display, holding down **[Color]** while adjusting the encoders will cause Hold Color Point behavior.

Encoder Softkeys

If you press the encoder for any parameter, the softkeys change to display options relevant to that parameter. These may include **{Home}**, **{Last}** and **{Next}**, or **{Min}** and **{Max}**, and depending on the type of parameter, a **{Mode}** or **{Calibrate}** button.

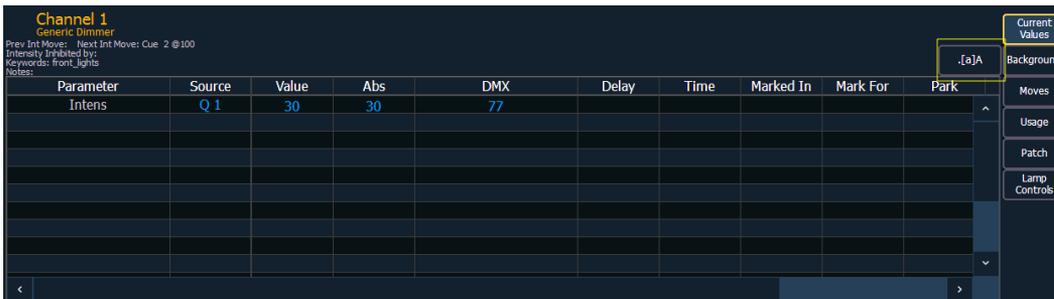
Previously this behavior was only available on Ion. Now this is available on Eos, Eos Ti, Gio consoles and the Eos Programming Wing.

[Shift] + [At], [Shift] + [Enter], and [Select Last]

[Shift] + [At], [Shift] + [Enter], and [Select Last] can now be used to loop through commands five times.

Zoom Added to About

A zoom button has been added to the About display. There are three zoom sizes: small, medium, & large. Medium is the default size. Press **{.a[A]}** to zoom.



[About] Color Path

The following information will be displayed when a color path is selected:

- » The color path number
- » Label (if any)
- » Channels that use the color path
- » Cues that have moves that use the color path
- » Number of cue lists the color path is used in

See [Color Path on page 13](#) for more information.

[About] Submaster

The following information will be displayed when a submaster is selected:

- » The submaster number
- » Label (if any)
- » Current value
- » Mode (additive, inhibitive, or effectsub)
- » Fader (proportional or intensity master)
- » HTP or LTP
- » Exclusive
- » Priority
- » Timing
- » Fader Pages
- » Channels in Submaster
- » Effects assigned

Color Path in Patch Attributes

A default [Color Path \(page 13\)](#) can be assigned at the channel level in Patch. That color path will be used for all of that channel's color fades unless overridden at the cue level. Submasters and manual transitions that use that channel will use the default color path as well.

While in Patch, **[1] [Path]/{Color Path} [2] [Enter]** will assign color path 2 to channel 1. Ion and Element users will need to use the **{Color Path}** softkey. You can also go to **Patch>Attributes>Color Path** to place color path on the command line.

See also [Color Path on page 13](#) and [\[About\] Color Path on page 16](#) for more information.

Fixture Lists in Library

The fixture lists in the library are now ordered alphanumerically.

For example, the following fixtures are listed first in alphabetical order and then ordered numerically.

Element Labs	AR5 Diffusion SA16 8	AR250C
Eliminator	AR5 Douser SA16 8	AR500 Diffusion SA8 4
Elite	AR50 Diffusion SA16 8	AR500 Douser SA8 4
Elumen8	AR50 Douser SA16 8	
ETC Arch	AR250	
>>	<<	>>

Gel Field

The Gel field in the Patch Database display automatically populates with the gel selected from the [Gel Picker \(page 11\)](#). The gel information will show up in two places in the Patch Database.

Notes	Text1	Text6
	front lights	
	Text2	Text7
	Text3	Text8
	Text4	Text9
	Text5	Text10
Gel	AP7450	

Chan	Address	Type	Label	Text1	Text2	Text3	Text4	Gel	Default
1	350	Dimmer		front lights				AP7450	Luminaire Incandescent

This field is available for use with the **[Query]** function. See [Additions to Query on page 1](#) for more information.

Renaming Text Fields in Patch

In the **{Database}** page in Patch, you can now rename the text fields. By default, the text fields are named **{Text 1}** through **{Text 10}**.

» **{Text 1} [Label] <Position>** will rename the text 1 field to Position.

Notes	Position	Text6
	front lights	
	Text2	Text7
	Text3	Text8
	Text4	Text9
	Text5	Text10
Gel		
		New Keyword

Text fields 1 through 4 display in the Patch display. Renaming those fields will rename the columns associated with them in the Patch display.

Chan	Address	Type	Label	Position	Text2
1	350	Dimmer		front lights	
2	351	Dimmer		front lights	

See also: [Additions to Query on page 1](#), [Gel Field on page 17](#), and [Lightwright Import on page 7](#)

Warning with Out of Sync Fixture Libraries

For multiconsole systems, all devices have to use the same fixture library. If the fixture library is different between devices, a warning will be displayed on the device trying to connect to the system.

Updating a Fixture Definition Warning

When updating a fixture definition in Patch, a warning message now includes what changes will be made to the fixture by updating it.

By Type Presets

By Type presets are created with 'default' channels which contain values that can be assigned to any other channel within the same fixture type. By Type presets can also contain discrete channel values.

By Type presets will display a 'T' in the lower corner of the direct selects. A '+' will display after the 'T' if there are channels stored with discrete data.

Using By Type Presets

Storing a By Type Preset

If **{By Type}** is used when recording, the lowest number channel of each fixture type will be the default channel. Generally, when storing by type presets, you will want only one channel of each fixture type in use. Any additional channels in that fixture type will be recorded with discrete data.

- » **[1] [Thru] [6] [Record] [Preset] [1] {By Type} [Enter]** - Channels 1 through 6 are saved to Preset 1. Channels 1 through 6 are of the same fixture type. Channel 1 will be the default channel, and channels 2 through 6 will be saved with discrete data.
- » **[1] [Thru] [6] [Record] [Preset] [1] [Enter]** - If a by type preset is rerecorded without using the **{By Type}** softkey and the default channel is included in the record, the default channel's level will change and all other changes will be discrete.
- » **[1] [Thru] [5] [Record] {Intensity Palette 1} {Discrete} [Enter]** - If a default channel is included in a record where **{Discrete}** is used and another channel is tracking it, the default channel will be changed to having discrete data and the lowest numbered tracking channel will become the new default channel. All other channels in the record will also have discrete data.

Editing By Type Presets in Blind

In Blind, the default channel's levels will display in blue, discrete data for the other channels will display in white, and any channels that are using the default channel value will display in magenta.

Ch	Intens	Intensity MSpeed	Pan	Tilt	Position MSpeed	Cyan	Magenta	Yellow	Color Select	Color Wheel Mode
71	FL	0	0	0	0	67	56	34	F1-	25
72	FL	0	0	0	0	67	56	61	F1-	25
73	FL	0	0	0	0	67	56	34	F1-	25
74	FL	0	0	0	0	67	56	34	F1-	25
75	FL	0	0	0	0	67	56	34	F1-	25
76	FL	0	0	0	0	67	56	34	F1-	25

Softkeys available for editing presets in blind are **{By Type}**, **{Discrete}**, and **{Cleanup}**.

- » **[3] {By Type} [Enter]** - makes channel 3 the new default channel for that device type. If another channel for that type was the default channel, its data will now be discrete.
- » **[1] [0] [Thru] [2] [0] {Discrete} [Enter]** - changes the levels for channels 10 through 20 to discrete. If any of those channels are default, the lowest numbered tracking channel will become the new default channel.
- » **[5] [Thru] [8] [At] [Enter]** - removes the discrete data for channels 5 through 8. They will now use the default channel's values.
- » **[Preset] [2] {Discrete} [Enter]** - changes all tracking and default channels to discrete.
- » **[Preset] [5] {By Type} [Enter]** - makes the first channel of each device type a default channel.
- » **[Preset] [3] {Cleanup} [Enter]** - converts presets created in earlier versions of Eos Family software to by type presets. This command will use the first channel of each type as the default, and allow other channels of the same type to use that value upon recall.

{Make Null} can be used with by type preset when you wish to withhold a channel from responding to a by type preset recall. The data will still display but will be in gray with a "N".

Updating By Type Presets

Pressing **{By Type}** after an **[Update]** command, with a channel tracking but no default channel included in the update, will cause the lowest numbered tracking channel's level to be updated into the default channel. The tracking channel will remain tracking. This means that when updating a default value in a by type preset, you don't need to know the default channel number.

When a default channel is included in an **[Update]** command without using **{By Type}** and another channel is tracking it, the default channel's data will be changed to discrete. The lowest numbered tracking channel will then become the new default channel. Any other updated channels will be made discrete.

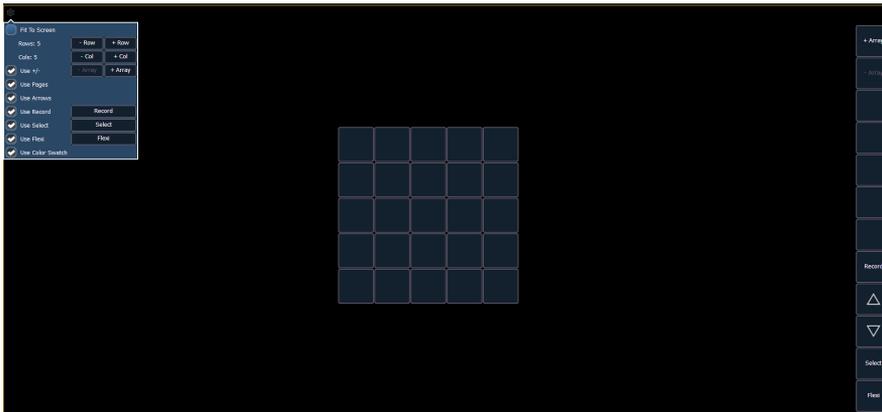
Indicators in Palette and Preset List Displays

Indicators for absolute (A), locked (L), and by type (T+) have been added to the palette and preset displays. These indicators display to the right of the palette or preset number.



Configuration Menu

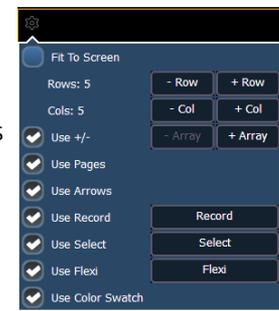
In the direct select x25 tab, a configuration menu button is located in the top left corner.



Menu Options

The following options are available in the Configuration Menu:

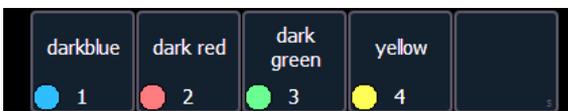
- » **Fit to Screen** - when selected, the direct selects will fill the screen as much as possible.
- » **Rows** - allows you to select the number of rows in the arrays.
- » **Columns** - allows you to select the number of columns in the array.
- » **Use Buttons** - selecting the checkbox for these buttons will allow them to display on the direct select screen. With or without the checkbox selected, you can use the buttons to the right of the checkboxes to recall the function.
 - » **Use +/-** - displays the **{+ Array} {- Array}** buttons.
 - » **Use Pages** - displays the page # buttons. There is not a way to select a page # from the configuration menu.
 - » **Use Arrows** - displays the page up and down arrows.
 - » **Use Record** - displays the **{Record}** button.
 - » **Use Select** - displays the **{Select}** button.
 - » **Use Flexi** - displays the **{Flexi}** button.
 - » **Use Color Swatch** - displays a round color swatch in the lower left corner of a color palette direct select.



By default all options except for Fit to Screen are enabled.

Color Swatch

In the Direct Select [Configuration Menu \(page 19\)](#), there is an option to **{Use Color Swatch}**. When selected, a round color swatch will appear in the lower left corner of a color palette direct select.

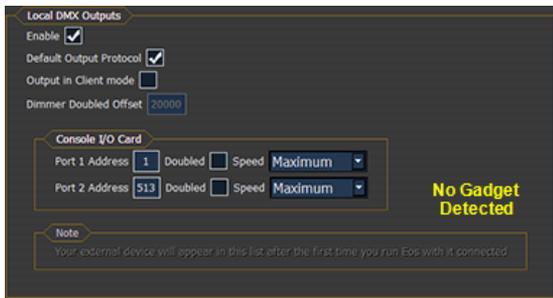


Gadget Settings

In the **ECU>Settings>Local I/O**, settings are available for Gadget. From this screen, you can configure the port address, enable Doubled, and set the port speed. Multiple Gadgets will appear in separate boxes and can be identified by their serial numbers.



Note: With a Gadget connected, you will need to go into the main Eos application first before the Gadget will display in the ECU.



Gadget Support

Eos can now support multiple Gadgets at the same time.



Note: There is a limit of four outputs.

Programming Wing Settings

In the **ECU>Settings>Local I/O**, settings are available for the Eos Programming Wing. Please see the Eos Programming Wing Setup Guide for more information.

Mini Encoder Display

A mini encoder display will display when an Eos Programming Wing is connected to ETCnomad.



Softkeys

For the Eos Programming Wing, you can hold down **[More SK] + Encoder Category Button** to access the second page of softkeys.

For Example

With a channel on the command line, pressing **[More SK] + [Intensity]** will post Make Manual on the command line.

This also works with Gio.

Encoder Paging

On ETCnomad, while holding down **CTRL+ALT+**, you can press one of the encoder category buttons to change the page.



Eos Family Hotkeys

To enable Eos functions on Mac Function keys:

- » Open Systems Preferences
- » Go into the Keyboard section
- » Enable the “Use all F1, F2, etc... keys as standard function keys” setting.



Note: Some international keyboards require “Use Shift Key as Eos Shift” to be disabled in the General section of the ECU Settings. Use Z as shift to access shortcut functions in these cases.

Console Key	PC	Console Key	PC	Console Key	PC
Shortcut List	;	Capture	Control Alt P	Focus Palette	Alt F
	?	CIA Hide	F5	Follow/Hang	Shift D
0	0	Clear	Backspace		Control Alt D
1	1	Clear Command Line	Shift Backspace	Format	F4
2	2	Color Filter	Control C		Control 4
3	3	Color Palette	Alt C	(Scroller) Frame	Control Alt C
4	4	Copy To	C	Freeze	Control Alt F
5	5	Cue	Q	Full	F
6	6	Cue Only/Track	X	Go	Spacebar
7	7	Data	Control D	Go To Cue	Control G
8	8	Data Mode	Control Shift D	Go to Cue Zero	Control Alt G
9	9	Delay	D	Group	G
. (decimal)	. (decimal)	Delete	Delete	Help	Alt /
- (minus)	- (minus)	Delete (Mac)	Fn Delete	Highlight	\
+ (plus)	=	Displays	F9		Control Alt H
	+		Control 9	Home	Home
+%	Shift =	Effect	Alt E		Control H
	Control Alt =	Effects Softkeys	Alt Shift E	Home (Mac)	Fn Left Arrow
+% (Mac)	Shift Fn Up Arrow	Encoder Display (Gio)	Control Alt \	Intensity Block	Shift B
-%	Shift -	Encoder Page Color^	Control Alt [		Control Alt B
	Control Alt -	Encoder Page Focus^	Control Alt ,	Intensity Filter	Control I
-% (Mac)	Shift Fn Down Arrow	Encoder Page Form^	Control Alt]	Intensity Palette	Alt I
/	/	Encoder Page Image^	Control Alt ;	Label/Note	L
About	Y	Encoder Page Intensity^	Alt .	Last	Page Up
Address/Dimmer	Alt A	Encoder Page Shutter^	Alt ,		Control ,
All NPs	Control N	Enter	Enter	Last (Mac)	Fn Up Arrow
Assert	Control W	Escape	Escape	Learn	Alt L
Assert (Playback)	Control Alt A	Expand	F5	Level	V
At	A		Control 5	Live	F1
	@	Fader Pages	Control P		Control 1
	*			Load	Control Alt L
Beam Filter	Control B	Fader Independent	Shift I	Macro	M
Beam Palette	Alt B	Fan	W	Macro 801 *	Control Alt 1
Blind	F2	FlexiChannel	F3	Macro 802 *	Control Alt 2
	Control 2		Control 3	Macro 803 *	Control Alt 3
Block	B	Focus Filter	Control F	Macro 804 *	Control Alt 4

Console Key	PC	Console Key	PC	Console Key	PC
Macro 805*	Control Alt 5	Record	R	Thru	T
Macro 806*	Control Alt 6	RecordOnly	Control R	Undo	Control X
Macro 807*	Control Alt 7	Release	Control Alt S	Update	U
Macro 808*	Control Alt 8	Rem Dim	H	Virtual Keyboard	Control K
Macro 809*	Control Alt 9	Scroll Lock	F6		
Macro 810*	Control Alt 10		Control 6	Shell Shortcut	
Magic Sheet	Alt M	Select	Control Enter	Shell Key	PC
Manual Override	Control Alt M	Select Active	Control A	0	0
	Control Alt N	Select Last	Control L	1	1
Mirror, Start	Alt F1	Select Manual	Control M	2	2
Mirror, Stop	Alt F2	Setup	Alt S	3	3
ML Controls	F7	Shift	Z	4	4
	Control 7	Snapshot	Control S	5	5
More Softkeys	Alt 7	Sneak	N	6	6
Next	Page Down	Softkey 1	Alt 1	7	7
	Control .	Softkey 2	Alt 2	8	8
Next (Mac)	Fn Down Arrow	Softkey 3	Alt 3	9	9
Off	Control Alt O	Softkey 4	Alt 4	. (decimal)	. (decimal)
Offset	Control O	Softkey 5	Alt 5	- (minus)	- (minus)
Out	O	Softkey 6	Alt 6	+ (plus)	=
Page Left	Left Arrow	Spacebar Disable	Alt G	/	/
Page Right	Right Arrow	Stop/Back	Control Spacebar	Arrow, Down	Arrow, Down
Page Up	Up Arrow	Stop Effect	Control Alt E	Arrow, Left	Arrow, Left
Page Down	Down Arrow		Control Alt K	Arrow, Right	Arrow, Right
Park	Alt K	Submaster	S	Arrow, Up	Arrow, Up
Part	P	Tab	Tab	Back	Esc
Patch	;;	Time	I	Clear	Backspace
Path	Control Alt W	Time (Displays)	Shift I	Delete	Delete
Pixelmap	Alt X		Control Alt I	Enter	Enter
Preset	Alt P	Timing Disable	Control Alt T	Escape	Esc
Query	Control Q	Toggle Hotkeys	F8	Select	Return
Rate	Control Alt R		Control 8		
Recall From	E	Trace	J		

*Some Shortcut Key combinations are not available on all physical keyboard layouts.

^Alternatively use Encoder Display + category to change the encoder pages.

Element Hotkeys

To enable Eos functions on Mac Function keys:

- » Open Systems Preferences
- » Go into the Keyboard section
- » Enable the “Use all F1, F2, etc... keys as standard function keys” setting.



Note: Some international keyboards require “Use Shift Key as Eos Shift” to be disabled in the General section of the ECU Settings. Use Z as shift to access shortcut functions in these cases.

Console Key	PC	Console Key	PC	Console Key	PC
Shortcut List	;	Clear	Backspace	Home	Home
	?	Clear Command Line	Shift Backspace		Control H
0	0	Color Filter	Control C	Home (Mac)	Fn Left Arrow
1	1	Color Palette	Alt C	Intensity Filter	Control I
2	2	Copy To	C	Intensity Palette	Alt I
3	3	Cue	Q	Label/ Note	L
4	4	Cue Only/Track	X	Last	Page Up
5	5	Data	Control D		Control ,
6	6	Data Mode	Control Shift D	Last (Mac)	Fn Up Arrow
7	7	Delay	D	Learn	Alt L
8	8	Delete	Delete	Level	V
9	9	Delete (Mac)	Fn Delete	Live	F1
. (decimal)	. (decimal)	Displays	F9		Control 1
- (minus)	- (minus)		Control 9	Load	Control Alt L
+ (plus)	=	Effect	Alt E	Macro	M
	+	Effects Softkeys	Alt Shift E	Macro 801*	Control Alt 1
+%	Shift =	Enter	Enter	Macro 802*	Control Alt 2
	Control.Alt =	Escape	Escape	Macro 803*	Control Alt 3
+% (Mac)	Shift Fn Up Arrow	Expand	F5	Macro 804*	Control Alt 4
-%	Shift -		Control 5	Macro 805*	Control Alt 5
	Control Alt -	FlexiChannel	F3	Macro 806*	Control Alt 6
-% (Mac)	Shift Fn Down Arrow		Control 3	Macro 807*	Control Alt 7
/	/	Focus Filter	Control F	Macro 808*	Control Alt 8
About	Y	Focus Palette	Alt F	Macro 809*	Control Alt 9
Address/Dimmer	Alt A	Follow	Shift D	Macro 810*	Control Alt 10
All NPs	Control N		Control Alt D	Magic Sheet	Alt M
At	A	Format	F4	Manual Override	Control Alt M
	@		Control 4		Control Alt N
	*	(Scroller) Frame	Control Alt C	Mirror, Start	Alt F1
Beam Filter	Control B			Mirror, Stop	Alt F2
Beam Palette	Alt B	Full	F	ML Controls	F7
Blind	F2	Go	Spacebar		Control 7
	Control 2	Go To Cue	Control G	More Softkeys	Alt 7
Block	B	Go to Cue Zero	Control Alt G	Next	Page Down
Capture	Control Alt P	Group	G		Control .
CIA Hide	F5	Help	Alt /	Next (Mac)	Fn Down Arrow

Console Key	PC	Console Key	PC
Offset	Control O	Timing Disable	Control Alt T
Out	O	Toggle Hotkeys	F8
Page Left	Left Arrow		Control 8
Page Right	Right Arrow	Thru	T
Page Up	Up Arrow	Undo	Control X
Page Down	Down Arrow	Update	U
Park	Alt K	Virtual Keyboard	Control K
Part	P		
Patch	;;		
Path	Control Alt W	Shell Shortcut	
Rate	Control Alt R	Shell Key	PC
Recall From	E	0	0
Record	R	1	1
RecordOnly	Control R	2	2
Release	Control Alt S	3	3
Rem Dim	H	4	4
Scroll Lock	F6	5	5
	Control 6	6	6
Select	Control Enter	7	7
Select Active	Control A	8	8
Select Last	Control L	9	9
Select Manual	Control M	. (decimal)	. (decimal)
Setup	Alt S	- (minus)	- (minus)
Shift	Z	+ (plus)	=
Snapshot	Control S	/	/
Sneak	N	Arrow, Down	Arrow, Down
Softkey 1	Alt 1	Arrow, Left	Arrow, Left
Softkey 2	Alt 2	Arrow, Right	Arrow, Right
Softkey 3	Alt 3	Arrow, Up	Arrow, Up
Softkey 4	Alt 4	Back	Esc
Softkey 5	Alt 5	Clear	Backspace
Softkey 6	Alt 6	Delete	Delete
Spacebar Disable	Alt G	Enter	Enter
Stop/Back	Control Spacebar	Escape	Esc
Stop Effect	Control Alt E	Select	Return
	Control Alt K		
Submaster	S		
Tab	Tab		
Time	I		

*Some Shortcut Key combinations are not available on all physical keyboard layouts.

^Alternatively use Encoder Display + category to change the encoder pages.

ETC® Supplement

Eos Family v2.2 Supplement to Operations Manual



The following information is new for version 2.2.0. This document is supplemental to and should be used in conjunction with information in the Eos Titanium, Eos, and Gio v2.0 Operations Manual, Ion v2.0 Operations Manual, and the Element v2.1.0 User Manual..



CAUTION: *If you choose to update fixture definitions in your existing show files after upgrading to version 2.2, it is recommended that you verify that your show plays back as expected. Changes have been made to the fixture library to make fixtures in future shows easier to control, however, these changes will impact existing shows after you manually update fixture definitions. For more information, see [Changes to Fixtures on page 16](#)*

Display Management Tools

One of the most significant improvements to the Eos family in this software release are the enhanced display management tools. The software provides improved capabilities for opening and navigating displays and control tools.

Increasing the depth of individual displays, this software introduces the ability to have one of three different workspaces active on individual monitors, as well as to have up to four areas (called frames) in use in any workspace. Each frame can hold multiple tabs.

Display Controls Menu Button

Workspaces



Monitors

Any physical monitor or touchscreen device connected to your console. The integral touchscreens on Eos Ti are examples of monitors as are external monitors used with any of the Eos Family consoles.



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Web: www.etconnect.com ■ QSF 4.1.9.1 ■ Copyright © 2014 ETC. All Rights Reserved. ■ Product information and specifications subject to change.
© 4250M1211-2.2.0 ■ Rev B ■ Released 2014-06 ■ ETC intends this document to be provided in its entirety.

Workspaces

Further expanding your monitor capabilities, workspaces have been added to offer independent display control on all of your connected monitors. Every monitor can have up to three workspaces, identified by the workspace icons in the upper left corner of any monitor (including any integrated touchscreens with your console).

You can use **[Tab] + [Page ▲]** and **[Tab] + [Page ▼]** to cycle through the workspaces. This will increment or decrement the current workspace and will then force all of the other workspaces to match the current workspace's number (1, 2, or 3). This is so you can quickly step through the workspaces.

Workspaces 1, 2, and 3

These three monitor icons are used to switch between each monitor's available workspaces. Each can be set up to include any of the desired layout, displays, and controls options offered on the Home Screen ([page 4](#)) or the Display Controls Screen ([page 6](#)).

Frames

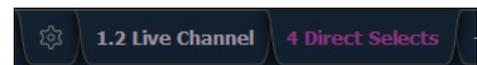
Each workspace can have up to four frames in its layout. The number of frames in a workspace layout is determined by choosing from the Layout Options ([page 4](#)) offered in the Home Screen ([page 4](#)) or the Monitor Options Screen ([page 6](#)).

Tabs

Any frame can have multiple tabs open. Tabs are now broken down into two categories: Control and Display. Control tabs (see [page 6](#) for a list of tabs) are the virtual control options that were formerly available in the browser, such as the color picker and the virtual keyboard. Display tabs (see [page 5](#) for a list of tabs) are the various displays available on the console, such as the playback status display and the park display.

You can open or close tabs using the Display Icons ([page 5](#)), Control Icons ([page 6](#)), or all of the methods used in previous versions of software. Pressing **[Shift] + [Tab]** once will clear all tabs on the selected monitor but tabs in locked frames will remain. Pressing **[Shift] + [Tab]** twice will clear all tabs on all monitors but tabs in locked frames will remain. Pressing **[Shift] + [Tab]** a third time will clear all tabs on all monitors including those in locked frames.

White text in the tab indicates a Display Tab, and magenta text indicates a Control Tab.



All Display and Control Tabs have fixed tab numbering under which they open (for example, "Live" opens under Tab 1, "Patch" under Tab 12, and "Color Picker" under Tab 27). These numbers are identified on the Home Screen in each icon and in the following table. For multiple instances of the same display, the tab number will be followed with a decimal number. Additional tabs will start their numbering with n.2. When you press **[Tab]**, active focus will move numerically through all open tabs on active workspaces.



Note:

Using just the **[Tab]** key to cycle through tabs will skip over any Control Tabs in locked frames. Pressing **[Tab] [n]** will select the tab regardless of if it is in a locked frame or not.

This table lists the tab number for each of the Control and Display tabs.

1	Channels	11	Show Control List	21	Curve List	31	Lamp Controls
2	Playback Status Display	12	Patch	22	Intensity Palettes	99	Diagnostics
3	Magic Sheet Display	13	Effect List	23	Focus Palettes		
4	Direct Selects	14	Magic Sheet List	24	Color Palettes		
5	ML Controls	15	Submaster List	25	Beam Palettes		
6	Effect Status	16	Cue List Index	26	Preset List		
7	Virtual Keyboard	17	Group List	27	Color Picker		
8	Effect Channels	18	Macro List	28	Virtual Faders		
9	Pixel Map List	19	Snapshot List	29	About		
10	Pixel Map Preview	20	Park	30	Command History		

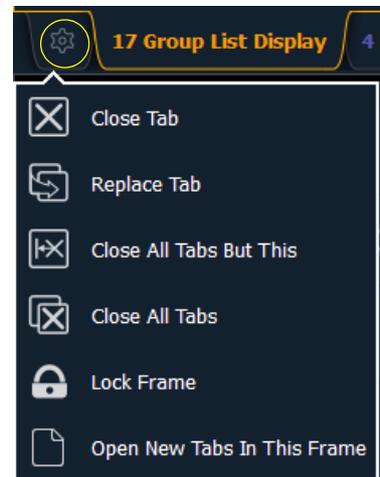
Focus Rules for Control and Display Tabs

Single clicking on a Controls Tab will bring it to the front of the frame but will not move focus to that tab unless the tab's frame already has focus. Double clicking on a Controls Tab will bring it to the front and grab focus. Single clicking on a Display Tab will bring it to the front and grab focus.

Tab Tools

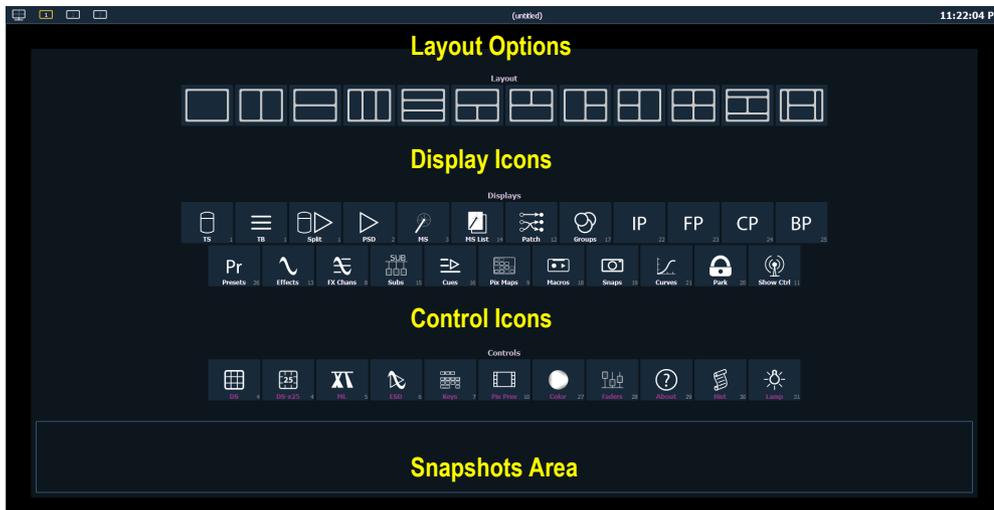
Every frame has a tab tools menu in the lower left corner of the frame. Selecting this menu icon will open the tab tools menu, which provides options for opening and closing tabs in that frame. You can left click with a mouse or double tap a tab in focus to also see this menu. Most options are self-explanatory with the following exceptions:

- “Replace Tab” allows you to close the current tab and choose from the Home Screen which display to replace it with. Pressing escape will return you to the previously selected tab.
- “Lock Frame” prevents any additional tabs from being opened in the selected frame.
- “Open New Tabs In This Frame” specifies that any new tabs opened will automatically open in the specified frame. Only one frame can have this option selected at a time.



Home Screen

Upon start up or creation of a new show file, any connected monitor that is not already displaying the Live or Playback Status Displays will show the Display Management Home Screen.



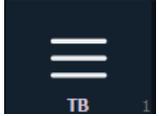
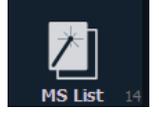
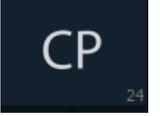
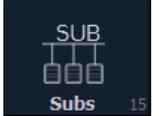
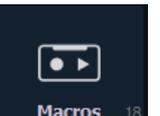
This screen consists of four general areas, each offering different display-related options.

Layout Options

These tools offer you greater flexibility in the number of tabs you can view in any given workspace. A workspace can have up to four frames. Selecting a layout icon will assign the frame layout identified in the icon. Once a layout is assigned, you can select which displays and controls will be in which frames.

Display Icons

The following displays can be selected, and they will open in a new tab in the selected frame:

Channel (Tombstones)  TS 1	Channel (Table)  TB 1	Split Channel  Split 1	Playback Status Display  PSD 2	Magic Sheet Display  MS 3	Magic Sheet List  MS List 14
Patch  Patch 12	Groups  Groups 17	Intensity Palettes  IP 22	Focus Palettes  FP 23	Color Palettes  CP 24	Beam Palettes  BP 25
Presets  Presets 26	Effects  Effects 13	Effect Channels  FX Chans 8	Submasters  Subs 15	Cue List  Cues 16	Pixel Maps  Pix Maps 9
Macros  Macros 18	Snapshots  Snaps 19	Curves  Curves 21	Park  Park 20	Show Control  Show Ctrl 11	

The following displays can have multiple instances open:

- Channel (Tombstone)
- Channel (Table)
- Split Channel
- Playback Status Display
- Magic Sheet Display
- Effect Channels
- Park

For multiple instances of the same display, the tab number will be followed with a decimal number. Additional tabs will start their numbering with n.2. If you have only one instance, there will be no decimal number.

Control Icons

The virtual controls that were located in the browser are now part of the home screen. You can select from the following list of virtual controls, and they will open in a new tab in the selected frame:

Direct Selects Classic  DS 4	Direct Selects x25  DS-x25 4	ML Controls  ML 5	Effect Status  ESD 6	Virtual Keyboard  Keys 7	Pixel Map Preview  Pix Prev 10
Color Picker  Color 27	Fader Module  Faders 28	About  About 29	Command History  Hist 30	Lamp Controls  Lamp 31	

Snapshots

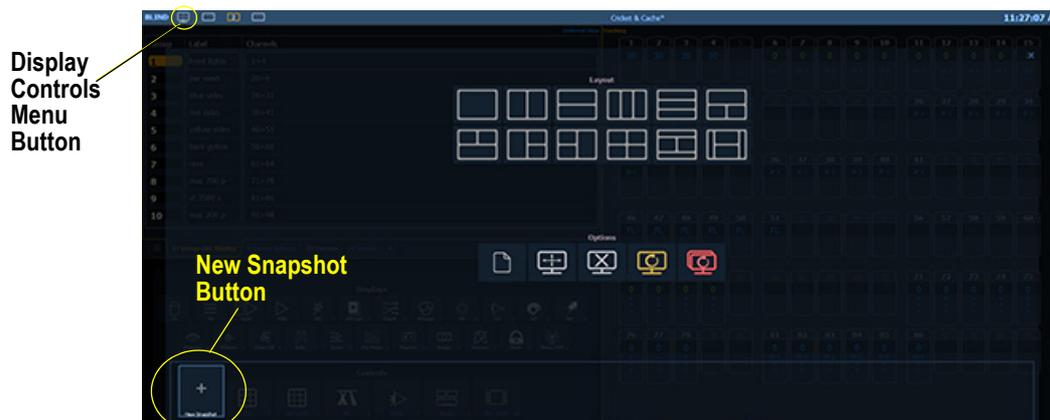
The snapshots displayed here are single monitor-only snapshots recorded for the visible workspace. These snapshots can be recalled from any selected monitor from the Home Screen or the Display Controls menu screen. You can recall a monitor-only snapshot from the command line by using the syntax **[Snapshot] [n] [Enter]**. When recalled from the command line, the selected snapshot will only affect the monitor from which it was originally recorded.

To record a monitor-only snapshot, press the **{New Snapshot}** button on the Display Controls menu screen. **[Delete] [Snapshot] [n] [Enter] [Enter]** will delete a monitor-only snapshot.

All snapshots can be viewed on the snapshot list display, which can be opened by pressing **[Snapshot] [Snapshot]** or from the home screen.

Display Controls Screen

Selecting the display controls icon will grant you access to the [Layout Options](#) previously described. Choose the layout icon for the arrangement and number of frames you want to use on the monitor.



This screen also offers options for opening and closing tabs as well as resizing and resetting the monitor(s). The icons are:

Open New Tabs On This Monitor

Select this icon to redirect to the [Home Screen](#) where you can open new tabs using the Display and Controls icons.



Resize Frames In This Workspace

Select this icon to resize frames in any of the workspaces on the monitor. After selecting, resizing tools will appear between frames of the workspace and you can select and drag the resize tool icons to adjust sizing as needed.



Close All Tabs In This Workspace

Select this icon to close all of the tabs in the active workspace on this monitor only.



Reset This Display

This icon will close all of the tabs and frames and will reset the layout for the active workspace to a single frame displaying the Home Screen, from which you can select new tabs to open.



Reset All Displays

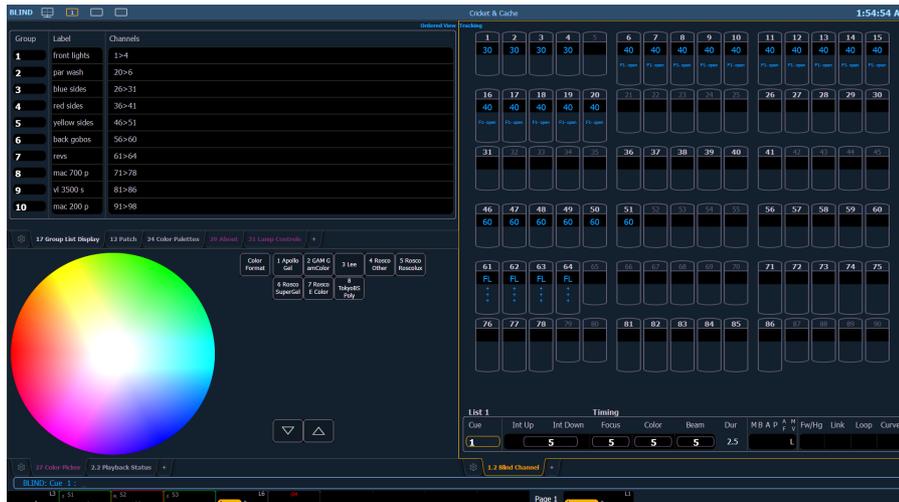
This icon will close all of the tabs and frames on *all* monitors, reset all layouts to a single frame, and return their workspaces to the Home Screen, from which you can select new tabs to open.



Changes to Displays

Blind Indicators

The blind indicators have changed with version 2.2. Now while in blind, the background color of the displays will be blue, the title bar will be bright blue, and the word “Blind” will display in the top left corner of each monitor. You can click on “Blind” to go back to live.

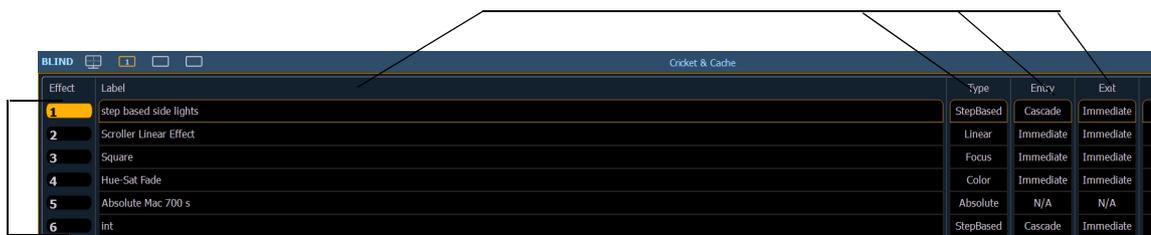


Clickable Support to Displays

Several displays are more interactive now with click supported cells. Clicking on a row header will select and place it on the command line. You can click on multiple row headers to select a range of items. Double-clicking a row header will select that row and deselect any other rows. Clicking on a column header will place that action on the command line. You can click on multiple column actions that can be combined, such as cue times, to place those on the command line.

Column Headers

Row Headers



The following displays have added clickable support:

- Show Control List
- Cue List
- Playback Status Display
- Palette Lists
- Sub List
- Preset List
- Effect List
- Group List
- Snapshot List
- Curve List
- Partition List
- Pixel Map List
- Magic Sheet List
- Park Address List

- Patch Display
- Spreadsheet Display
- Macro List

Displaying Fader Pages with Content

When using **[Fader Page]** or **[Shift]+ [Fader Page]**, the displayed page will jump to the next page with content, and then to the next incremental page before skipping to the next page with content.

For example, pages 1-3 and page 11 have content. If on page 2 you press **[Fader Page]**, you will see pages 3 then 4 then 11 then 12 displayed. After page 12, you will jump back to page 1.

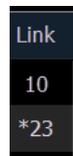
When on page 11, as you press **[Shift]+ [Fader Page]** you will see page 10 then page 3.

Playback Fader/Page Displayed in Cue List Index

Previously only the playback fader's ID displayed in the cue list index. Now the page and fader number display after the playback ID.

Links to Non-existent Cues

When a cue is linked to a non-existent cue, a "*" will display next to the cue number in the link column of the playback status display and the cue list index.



Beam Subcategories Rearranged

The order of beam parameters has changed from (Shutters, Image, Form) to (Form, Image, Shutters). This change impacts the live/blind displays, ML controls, the fixture editor parameter list, and the parameter tiles in the CIA. This change does not affect the physical keycaps.

Virtual Media Server Crossfade

The Virtual Media Server crossfade parameter level will display in subscript beside the intensity.



Element Playback Status Display

Scrolling with a mouse is now enabled for the Playback Status Display on Element. This behavior was already available on the other Eos Family consoles.

Changes to Direct Selects

There are now two different direct select modes: direct selects classic and direct selects x25.

Direct Selects Classic

In classic mode, you have two options, fit to screen and classic layout, that were first made available in version 2.1. You can change between fit to screen and classic layout by toggling the **{Classic/Fit}** button.

A couple of new options have been added for version 2.2:

- A **{1x/2x}** button allows you to toggle the direct selects to show one bank of 5 rows or two banks of 5 rows.
- A **{Record}** button has been added that posts Record to the command line.

Direct Selects x25

The Direct Selects x 25 mode displays only a single category of direct selects at a time.



By using the **{+25}** and **{-25}** buttons, you can change the number of available buttons in increments of 25. You can select a page of direct selects by using the page access buttons or by using the page up and down buttons. The **{Select}** and **{Flexi}** buttons work the same as in previous software versions.

Changes to About

The number of patched channels and number of cues have been added to the default **[About]** display. The number of cues is a count across all cue lists. Multipart cues are only counted once. To see this display, press **[About]** when the command line is clear.

About Palette/Preset

A **{Usage}** button has been added to the About Palettes and About Presets displays.

{Usage} displays the following information about palettes and presets:

- Number of cues that move
- List of channels that use the palette/preset in a cue
- List of channels stored in the palette/preset that are not used in a cue
- List of cues in which the palette/preset have a move instruction
- List of effects that use the palette/preset

About Macro

An **[About]** Macro display has been added. This display shows a list of cues that will execute a selected macro. To view this display, you must be in the Macro Editor Display. While in that display, press **[About]** and then select the macro by using a mouse or touchscreen.

About Cuelist

Cue List 7		
Proportional, LTP Active Cues: 2 Num Of Cues: 17 First Cue: 1 Last Cue: 17 Partition Running On Master Playback		
Channels	Channels > 0	Channels = 0
6>20 26>31 36>41 46>51 61>64 71>78	6>20 26>31 36>41 46>51 71>78 81>86	61>64
81>86 91>98	91>98	

The following information will be displayed when a cue list is selected:

- Cue List Attributes

- Active Cue
- The number of cues in the list (Multipart cues are only counted once)
- First cue in the list
- Last cue in the list
- Partition
- Playback number and physical fader location of the cue list
- Channels currently controlled in live by the cue list
- Channels with any intensities above 0 in the cue list
- Channels with Parameters stored in the cue list but no intensities

Changes to User Interface

Changes to Snapshots

The following changes have been made to the snapshot screen (**[Snapshot] [Snapshot]**):

- The **{Faders}** button is no longer selected by default.
- A **{Visible Workspaces}** button has been added to snapshot only the visible workspaces.
- An **{All Workspaces}** button has been added to quickly include all workspaces, including those not visible at the time of recording.
- Direct selects is no longer a separate option.

See [Snapshots on page 6](#) for information on single monitor snapshots.

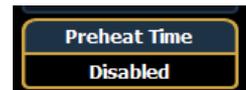
Snapshots Added to Element

Snapshot functionality has been added to the Element console with the addition of a **{Snapshot}** softkey. You can now store all of the monitor configurations for your Element console. All displays are automatically included in all snapshots.

Changes to Setup

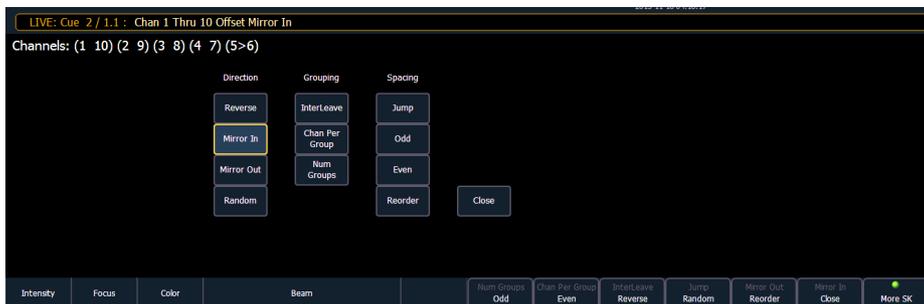
Default Preheat Time

An option for default preheat time has been added to **Setup>ShowSettings**. If this option is disabled, the cue's up intensity time will be used when preheating. The default setting is "Disabled".



Changes to Channel Distribution

When **{Offset}** is pressed, a new channel distribution display will open.



The following options are available as extensions of **{Offset}**. Previously only **{Reverse}**, **{Random}**, **{Odd}**, **{Even}**, and **{Reorder}** were available. Options can be used together. These extensions can be used to create subgroups. For more information on subgroups, please see the Eos Family v2.0.1 Operations Manual Supplement.

Direction

- **{Reverse}** creates a group with the channels in the reverse order that they were selected in.
- **{Mirror In}** creates subgroups of channels that mirror inward.
 - **[1] [Thru] [8] {Mirror In} [Enter]** would create 4 subgroups in this order: (1,8) (2,7) (3,6) (4,5).

Ch 1	Ch 2	Ch 3	Ch 4	Ch 5	Ch 6	Ch 7	Ch 8
X							X
	X					X	
		X			X		
			X	X			

- **{Mirror Out}** creates subgroups of channels that mirror outward.
 - **[1] [Thru] [8] {Mirror Out} [Enter]** would create 4 subgroups in this order: (4,5) (3,6) (2,7) (1,8).

Ch 1	Ch 2	Ch 3	Ch 4	Ch 5	Ch 6	Ch 7	Ch 8
			X	X			
		X			X		
	X					X	
X							X

- **{Random}** creates a random order to the channels.

Grouping

- **{Chan Per Group}** creates a specified cluster of channels.
 - **[1] [Thru] [1][2]{Chan Per Group} [3] [Enter]** would create these 4 subgroups of 3 channels each: (1,2,3) (4,5,6) (7,8,9) (10,11,12).
- **{InterLeave}** creates a number of distributed sets of channels, that are not clustered together.
 - **[1] [Thru] [1][2]{Chan Per Group} [4] {InterLeave} [Enter]** would create these 4 subgroups: (1,4,7,10) (2,5,8,11) (3,6,9,12).
 - **[1] [Thru] [5] [+] [1][1] [Thru] [1][5] [+] [2][1] [Thru] [2][5] {Chan Per Group} [3] {InterLeave} [Enter]** would create these 5 subgroups: (1,11,21) (2,12,22) (3,13,23) (4,14,24) (5,15,25).
- **{Num Groups}** creates a specified number of subgroups.
 - **[1] [Thru] [1][2]{Num Groups} [3] [Enter]** would create these 3 subgroups: (1,2,3,4) (5,6,7,8) (9,10,11,12).

Spacing

- **{Jump}** is used to skip over a specified number of channels.
 - **[1] [Thru] [1][2]{Chan Per Group} [3] {Jump} [1] [Enter]** would create these 3 subgroups of 3 channels each: (1,2,3) (5,6,7) (9,10,11). Channels 4, 8, and 12 will be jumped over and will not be in the subgroups.
- **{Odd}** selects only the odd numbered channels.
- **{Even}** selects only the even numbered channels.
- **{Reorder}** is used to reorder the channels of a group into numeric order.

{Offset} Button Added to Some Displays

Submaster, palette, and preset blind views now all include an **{Offset}** button. Step-based effects have an **{Offset}** button now as well.

Changes to Effects

Effect Channel Display

The ability to override certain effect properties per channel at the cue level has been added.

The effect channel display has been added for this. To open this display, press **[Shift] + [Effect]** or select the effect channel icon from the display management home screen, see [Display Icons on page 5](#).



Effect	Channel	Rate	BPM	Size	Axis	HForm	VForm
E 1	26	50					
	27						
	28						
	29						
	30	50					
	31						
	36	50					
	37						
	38						
	39						
	40	50					
	41						
	46	50					
	47						
	48						
	49						
	50	50					
	51						

The following properties can be overridden:

- Rate
- BPM
- Size (Relative Effects Only)
- H Form (Focus Effects Only)
- V Form (Focus Effects Only)
- Axis (Focus Effects Only)



Note:

To add a channel level override, first you will need to be in the Effect Channel display with the effect running. The effect status display also needs to be open. To learn how to apply an effect, please see the *Apply an Existing Effect* section of the *Creating and Using Effects* chapter of your console's manual.

[2][6]<Effect><1>{Rate}[6][Enter] - to change the rate for just channel 26. With the effect running, the console will default to the running effect number. You may need to select the effect first (**[Effect] [n] [Enter]**). This will open the effect status display, and you will have access to the effect softkeys.

In the effect status display, an “+” will display by any effect property that has a channel level override.

You can then store these channel overrides in a cue by using **[Record]** or **[Update]**.

BPM as a Cue Level Override

BPM can be applied to an effect or individual channels as only a cue level override in live and blind. As a cue level override, the effect step/action times will not be affected.



Note: *The effect editor cannot be open when applying a cue level override. The effect status display does need to be open though. You can open the effect status display from the home screen or by pressing [Effect] while in live.*

With an effect recorded into a cue and playing back in live, **[Effect] [1] {BPM} [3][0] [Enter]** will change the BPM of the effect running. This change will happen immediately but the step or action times will not change. You can see the BPM value, which will be in red, in the Effect Status display.

When the cue is updated or recorded with the new BPM, an “*” will appear next to the effect number in the Ext Links column of the PSD and the cue list. The BPM value in the effect status display will now be displayed in blue.

[1] [Effect] [1] {BPM} [3][0] [Enter] will only change the BPM for channel 1. A “+” will display in the BPM column of the effect status display, and the BPM will display in red in the effect channel display.

Once the cue is updated or recorded, the BPM will display in blue in the effect channel display. The “+” will still be displayed in the effect status display, and an “*” will appear next to the effect number in the Ext Links column of the PSD and the cue list.

BPM Impacts All Times of a Step-based Effect

Applying BPM to a Step based effect will now override all timing in the effect. Previously BPM only impacted the step times. Now the Step, In, Dwell, and Decay times are all affected.

Step/Action Selection

If an effect step/action is on the command line or indicated in the blue text to the left of the command line, entering a number on the command line will default to selecting a step/action for the previous selected effect.

If no step/action is displayed, the command line will default to effect number.

Effect List Navigation

Using the **[Next]/ [Last]** keys will now only move between effects in the effect list display. To navigate the effect editor, you will need to use the page arrow keys.

Confirming Effects changes

When using **[Page ▼]** to create a new effect step/action in the Effects Editor display, you will first be asked to confirm the new step/action number before continuing. This is to prevent new step/action from being created by mistake. To bypass this confirmation, you can hold down **[Shift]** while using **[Page ▼]** or enter the step/action number manually.

Changes to the ECU

Client Mode Consoles

Consoles in client or backup mode now by default will not output on their local DMX ports. This option is found at **ECU>Settings>Local I/O**. Click on **{Output Local DMX in Client mode}** to enable the ability to output.

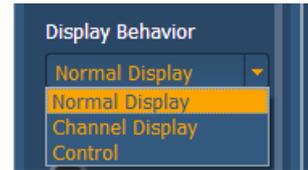
24 Hour Format Clock Added

In the **ECU>Settings>General**, an option has been added to display the clock in the 24 hour format.

Changes to Magic Sheets

Display Behavior

In the Background Settings tab of the magic sheet editing tools, there is a new option for display behavior. This option was added to go along with the new focus rules for display and control tabs. See [Focus Rules for Control and Display Tabs on page 3](#) for more information.



The following display behaviors are now available:

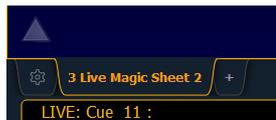
- **Normal Display** - The display will behave the same as a Display Tab.
- **Channel Display** - This mode uses the following rules:
 - When focus is drawn to the playback status display, a magic sheet channel display will be brought to the front.
 - Using **[Shift] + [Live]** cycles through the magic sheet channel displays.
 - Pressing **[Live]** or bringing a Live tab into focus will restore your last focused magic sheet channel display.
 - Magic sheet channel displays in the locked frame will not be skipped when using the **[Tab]** key to cycle through tabs.
- **Control** - The display will behave the same as a Controls Tab.

Changes to Background Settings

You can now select live and blind backgrounds for magic sheets. These backgrounds can either use a solid color, gradient of two colors, or an image. One of these backgrounds will be used when editing a magic sheet. Select the **{Use While Editing}** button to use either the live or blind background.

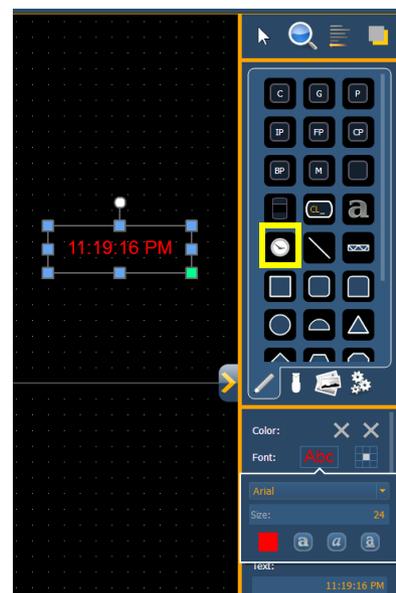
Live and Blind Indicators

Magic Sheets now indicate Live or Blind on their tab.



Clock

A clock has been added to the MS Object Library. You can now add a clock to any magic sheet. By using the MS Object properties, you can edit the color, font, and size of the clock.



Changes to Fixtures

Changes have been made to the fixture library in version 2.2 to make fixtures easier to control. These changes affect the fixture definitions.

These changes include:

- More mode parameters for complex fixtures
- More calibrated ranges
 - For example, DMX ranges are calibrated in real units (25 to 50 Hz or 5 to 20 RPM) instead of their absolute DMX values.
- Changes to the index type parameters
 - For example, some index parameters that used to be 0-360 degrees are now -180-180 degrees.

Pixel Mapping Installer Update

Eos Family v2.2 includes an enhancement for operating file system support for Nomad systems running on a PC or Macintosh. This changes the default location for storing show files and media to the main "User" documents location of the system; **[Windows Drive]:\Users\<<Your User Name>>\My Documents\ETC\Eos** for Windows 7 & 8, **~/Documents/ETC/Eos** on Mac platforms.

An update to the Eos Family Pixel Mapping Installer is available (v1.0.1). You may obtain this release of software by downloading it from the Downloads section of the ETC website, www.etcconnect.com. First time Nomad installs of Eos Family v2.2 should use Eos Family Pixel Mapping Installer v1.0.1. This is not required for upgrades to Eos Family v2.2, but it is recommended.



Note: For consoles updating from v1.9.2 or earlier, it is recommended that you install pixel map installer v1.0.1



Note: Please be sure to check your media archive location in **ECU>Settings>General>Media Archive Path** to ensure proper configuration. Restoring defaults will use the updated locations configured by Eos v2.2 and the v1.0.1 pixel map installer.

ECU Change for Nomad



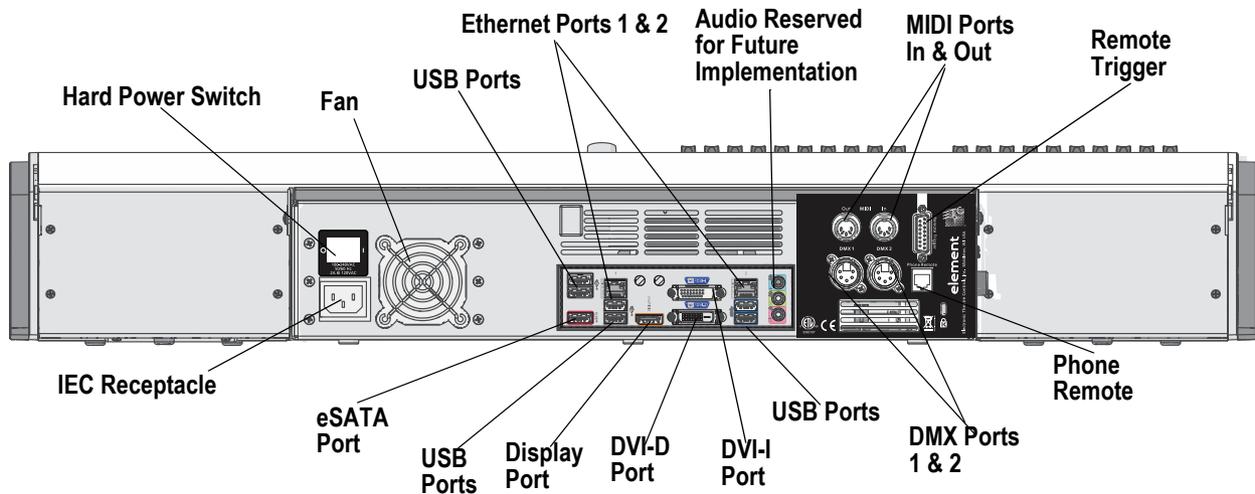
For Nomad, a new option has been added to the ECU to allow Fullscreen Offline Editor mode. Instead of separate windows, the displays will be fullscreen.

With this mode disabled, you can choose up to six windows to display. Fullscreen Offline Editor mode is enabled by default.

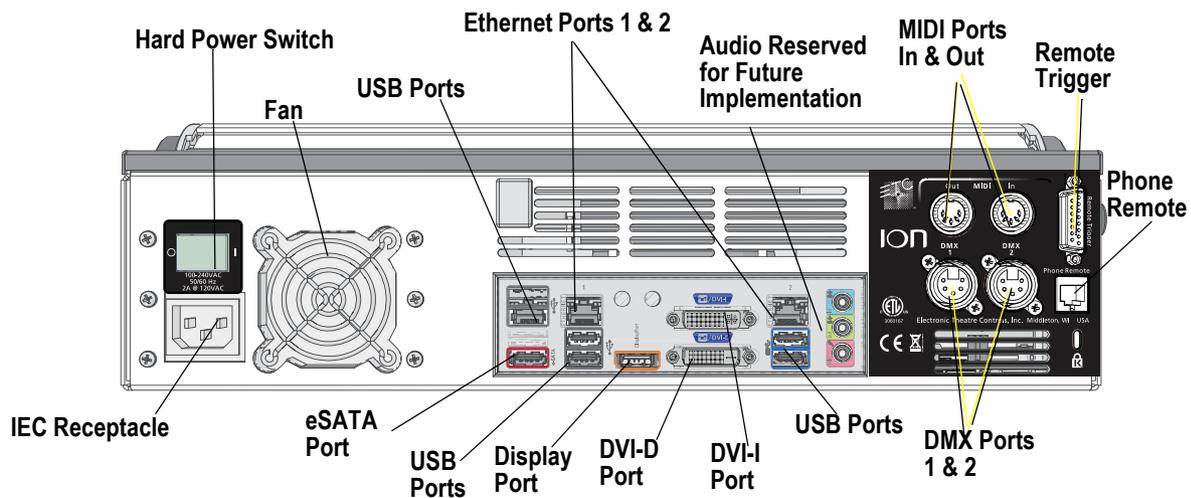
Hardware Changes

Element and Ion are now shipping with Windows 7 and a revised motherboard/SSHD.

Element



Ion

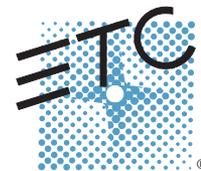


Ion & Element support up to 2 monitors using the following combinations:			
Signal Type / Physical Port	Display Port	DVI	VGA
Display Port	Yes	Yes with Adapter	Yes with Active Adapter
DVI-I Port	No	Yes	Yes with Adapter
DVI-D Port	No	Yes	No

Multitouch monitors need to be Windows 7 or 8 Compatible.

ETC[®] Supplement

Eos Family v2.1.0 Supplement to Operations Manual



The following information is new for version 2.1.0. This document is supplemental to information in the Eos Titanium, Eos, and Gio v2.0 Operations Manual, and Ion v2.0 Operations Manual, and should be used in conjunction with it. For Element users, the Element User Manual has been updated for version 2.1.0.

Eos Ti

Eos Ti consoles cannot automatically update the software on other devices running software versions prior to 2.1.0. Once those units are updated to version 2.1.0, Eos Ti consoles will be able to auto update all system devices via the update setting in the ECU.

System Overview Change

Channel Counts

The maximum number of allowed channels that can be defined in patch has increased from 10,000 to 16,000, (can be any number from 1 to 99,999). This change impacts Eos Ti, Eos, Gio, and Ion.

System Basics Changes

Direct Selects

There are two options for opening the direct select modules, which are Fit to Screen and Classic Layout. Fit to Screen is designed for wide format displays. For standard size monitors, use the Classic Layout. The following example shows both options on a wide format display:



[Shift] + Direct Select

Selecting record targets from direct selects will terminate the command line. To post a control to the command line without terminating it, hold down **[Shift]** while pressing the direct select. This allows multiple commands to be selected and executed at once, and an optional sneak time to be entered.

Modifying a Terminated Channel Selection

It is possible to add or remove channels from a previously terminated command line. You will need to first press **[+]** or **[-]** and then you can add to or remove from your current channel selection. This includes selecting channels from the direct selects, summary view, and Magic Sheets.



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Grandmaster/Blackout

If a grandmaster is set to a value other than 100%, a grandmaster button with the set value will be shown at the top of each display. If blackout is currently on, a blackout button will be shown at the top of the displays. Clicking on either button will open a new display which will allow you to turn off blackout and set the grandmaster to a different level.

Grandmaster 10%

BLACKOUT

Select grandmaster level / blackout:
10%

7	8	9
4	5	6
1	2	3
Clear	0	Enter

Blackout
Full
Close

Managing Show Files Change

Show File Advisory

If the loaded show file exceeds the console's output capacity, an advisory will display in the CIA. You will need to dismiss the advisory by pressing **{Ok}** before continuing. To see the capacity of the console, press **[About]**.

Setup Changes

High Contrast Display

By default, High Contrast Display is now enabled in **Setup>Desk>Displays**.

100 Channel Display

Additional options have been added to 100 Channel Display in Setup, **Setup>Desk>Displays**, to help accommodate different display dimensions.

You can select to have this option disabled, display the channels in 4 rows of 25 (4x25), or 5 rows of 20 (5x20), depending on the dimensions of your displays. The default for this setting is "Disabled."

Encoder Acceleration on Eos and Ion

Encoder Acceleration has been removed from Eos and Ion, which matches the behavior of the Eos Ti and Gio encoders.

In **Setup>Desk>Face Panel>Encoders**, there are two options available: **{Degrees Per Revolution}**, which is for the pan & tilt encoders, and **{Percent Per Revolution}**, which is for the other encoders. When a pan or tilt encoder is moved one revolution, the parameter will change by as many degrees as defined in Setup. The default is 30. When any other encoder is moved one revolution, the parameter will change by the set percentage of its entire range. The default is 35.

The settings for **{Encoder Degrees Per Revolution}** and **{Encoder Percent Per Revolution}** are stored with the show file. Starting a new file will reset the two settings to their default values.



Note: *On Eos, toggling an encoder no longer works to place it into fine mode. On both Eos and Ion, hold down **[Shift]** while moving the encoder for fine control. Releasing the **[Shift]** key will restore the encoder to its default mode*

Removing Virtual Hue and Saturation Parameters

In **Setup>Show>Show Settings**, an option, **{Create Virtual HSB}**, has been added, which allows you to disable creation of virtual hue and saturation parameters. This option is “Enabled” by default.

When Virtual HSB controls are disabled, the hue and saturation columns will not display in Table view. You will not be able to record just the Hue or Saturation values into a cue, submaster, preset, or palette, and you cannot apply an effect to Hue and Saturation. You will still be able to control Hue and Saturation from the encoders, ML Controls, Color Picker, and the command line.

Fan Change

Using Subgroups with Fan

Subgroups can be used with the Fan feature. Channels in the same subgroup will act as a single channel when fanned.

For Example:

Group 1 is made up of channels 120 thru 130. Channels 120 thru 123 are one subgroup, channels 124 thru 126 are not in any subgroup, and channels 125 thru 130 are another subgroup.

- **[Group] [1] [Fan] [Enter]**

Selects group 1 and puts it into fan mode. Rolling up the level wheel creates the following result. Channels 120 thru 123 share an intensity, channels 124 thru 126 each have different intensities, and channels 127 thru 130 share an intensity.

120	121	122	123	124	125	126	127	128	129	130
0	0	0	0	28	55	82	FL	FL	FL	FL

Submaster and Patch Changes

GM Exempt and Intensity Master

For channels that have been set to GM Exempt in Patch, Intensity Master control will not impact the intensity of those channels.

[Query] {Unpatched}

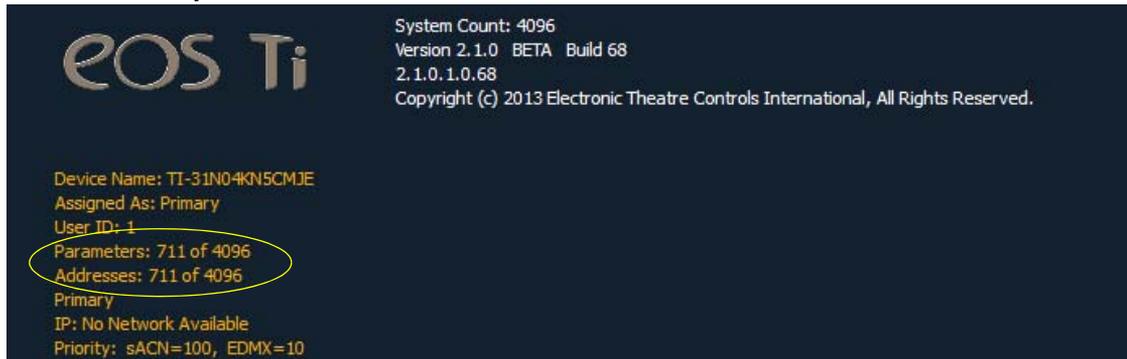
To quickly delete channels without addresses in the Patch display, you can use the command **[Query] {Unpatched} [Delete]**. This will post to the command line all channels without addresses. By pressing **[Enter][Enter]** you will delete them.

Ion users will need to press **[Shift] + [Select Last]** to access the **{Query}** softkey in Patch.

[About] Changes

In the default About display, a new field has been added called Parameters. This field references the number of parameters that have been defined in patch. This includes parameters that have been patched to output addresses and those that have not. The field below Parameters, Addresses, only calculates the number of addresses that have been used in patch (which counts toward available outputs). The Parameters field is useful as even unpatched, but defined, parameters must be displayed and calculated in the fade engine. If you are running a large show, it is helpful to delete defined, but unpatched channels. This is where the **[Query] {Unpatched}** command is helpful.

For Example:



About Cue

In the About Cue display, three new columns that show channel moves have been added. Those columns are intensity moves, live NPs moves, and dark NPs moves.

Effects Changes

Preprogrammed Rainbow Effects

Two new preprogrammed effects have been added to the effect list. Effect 917 is a Rainbow RGB effect, and effect 918 is a Rainbow CMY effect. These effects are for a rainbow on native color parameters that will fade hue from 0 to 360 with saturation at full, when the parameters are at their default levels. 0 is the default for CMY, and Full is the default for RGB.

Focus Effects

When adjusting the form of a focus effect, you can hold down **[Shift]** while using the horizontal encoder to change the vertical form.

Beats Per Minute/ Tap Rate

For step-based and absolute effects, you can set a beats per minute (BPM). For step-based effects, BPM affects the step times and for absolute effects, this affects the time/dwell. Note that BPM impacts the effect directly. It is not currently available as a cue level override.

There are two different ways for assigning BPM to effects:

Directly setting BPM

If you know the BPM, you can assign that directly to the effect by using the **{BPM}** softkey, which is available when in the effect editor display.

- **[Effect] [1] {BPM} [1][9][0] [Enter]** - sets the BPM of effect 1 to 190. The step times will be adjusted for step-based effects, or the time/dwell will be adjusted for absolute effects.

The BPM will display on the right side of the effect editor beside the effect number/label. Editing the cycle time, the step time for a step-based effect, or the time/dwell for an absolute effect will remove the BPM.

Learning BPM

If you don't know the desired BPM, you can learn the BPM.

From Live, with the effect running:

- **[Effect] [1] [Learn] [Time]** - posts Effect 1 Learn Time Sample BPM to the command line, and opens the effect editor display.

While in this mode, press **[Enter]** to establish the BPM. The console will use an average of the last four times you press **[Enter]** in this mode to calculate the BPM. Pressing **[Learn]** again will stop this mode.

In this mode, every time the BPM changes, a live running effect will be modified accordingly without stopping.

Learning Discrete Step Time

In learning discrete step time mode, every time you press **[Enter]**, the time since the last press of **[Enter]** is used to set the next step's step time for a step-based effect, or the next step's fade/dwell time of an absolute effect.

- **[Effect] [1] [Learn] [Time] [Time]** - posts Effect 1 Learn Time Discrete Steps to the command line, and opens the effect editor display.

Pressing **[Learn]** again will stop this mode.

Instead of pressing **[Enter]**, you can press **[At]** while in this mode to add new steps to the end of the effect. Pressing **[Enter]** will send you back to the first step in the effect.

Magic Sheet Changes

Address as Target Type

Address is now an available target for magic sheet objects.

Address Added to List of Fields

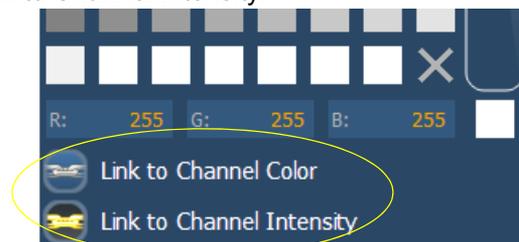
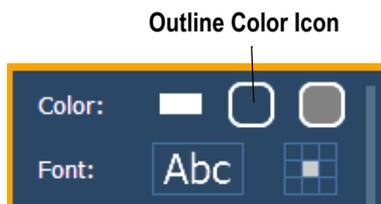
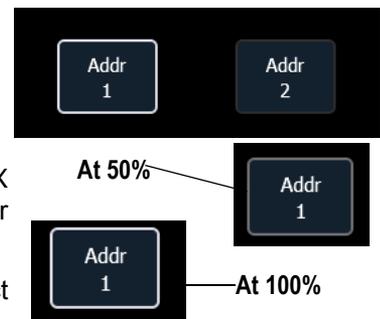
Address has been added to the list of fields that can be displayed around an object.

Address Object Color

An address object, with its outline color set to Link to Channel Color, will have a white outline if the address is patched, or a dark outline if the address is unpatched.

If the address object's outline color is set to Link to Channel Intensity, the brightness of the outline color will be tied to the DMX level of the address. The higher that the DMX value is the brighter the outline color will be.

To set the outline color to Link to Channel Color or Intensity, select the outline color icon in the color section of MS Object Properties. Then select either Link to Channel Color or Link to Channel Intensity.



Fixture Symbols

Additional fixture symbols can be imported. The symbol must be saved as a .svg image file, and needs to be tagged properly. These tags can be linked to the channel's color, intensity or both.

The outline section needs to be tagged as etc_symbol_outline0, etc_symbol_outline, and/or etc_symbol_outline2. The base section needs to be tagged as etc_symbol_base0, etc_symbol_base, and/or etc_symbol_base2. Tags can be layered, and they will render in the order listed below:

- **etc_symbol_base0** - uses fill color intensity link (not color)
- **etc_symbol_base** - uses fill color and intensity link
- **etc_symbol_base2** - uses fill color intensity link (not color)
- **etc_symbol_outline0** - uses outline intensity link (not color)
- **etc_symbol_outline** - uses outline color and intensity link
- **etc_symbol_outline2** - uses outline intensity link (not color)

Tags that only link to intensity will cause the base or outline to dim based on the channel's intensity.

The edits to the tags in the .svg file can be made in any text editor program, such as Notepad, or in a .SVG editor program, such as Inkscape.

ECU Changes

Enable Sensor/ FDX3000 Feedback

Clicking in the enable box will allow your console to receive feedback over the network from a CEM+, a CEM3, or FDX3000. This option is "Enabled" by default.

Enable FDX2000 Feedback

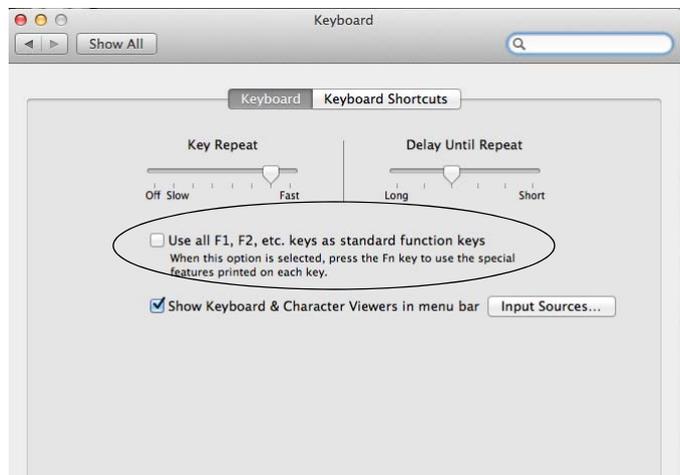
Clicking in the enable box will allow your console to receive FDX2000 dimmer feedback over the network.

Client Software Change

Using Offline or Client with Mac Laptops

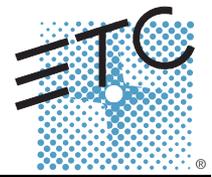
When using a Mac laptop or wireless keyboard with the Mac functions mapped to the F1-F12 keys, Eos offline/client functions are not executable. The Mac functions must first be disabled before Eos offline/client functions will work:

- Step 1: Open **System Preferences** on your computer.
- Step 2: Open the **Keyboard** section.
- Step 3: Enable **Use all F1, F2, etc. keys as standard function keys** by clicking in the box.



ETC® Supplement

Eos Family v2.0.1 Supplement to Operations Manual



The following information is new for version 2.0.1. This document is supplemental to information in the Eos Titanium, Eos, and Gio v2.0 Operations Manual, Ion v2.0 Operations Manual, and Element v2.0 User Manual, and should be used in conjunction with it.

Display Changes

Changes in this section impact the System Basics chapter and the Facepanel Shortcuts appendix.

Latching Data and Time

[Data] Key

Pressing and holding **[Data]** allows you to view the values behind any referenced or marked data. **[Data]** exposes the next lower reference level. So if you view a palette reference and press **[Data]**, the absolute data will be displayed instead. If you are viewing a preset, absolute or palette data will be displayed, depending on what is contained in the preset.

On Eos Ti, Eos, Gio, and Ion, you can lock this mode by pressing **[Shift] + [Data]**. When in display reference values mode, “Data Latched” will display in the upper left of the live display and the **[Data]** key will be lit in green on Eos Ti and Gio. To exit this mode, press **[Shift] + [Data]** again.

[Time] Key

Pressing and holding the **[Time]** (the one by **[Data]** on Eos Ti, Eos, and Gio) allows you to view discrete timing data behind any channel parameter. **[Time]** exposes channel or parameter specific timing for any channels in the current cue. The first value is the delay time. If “--” is displayed, there is no delay. The value to the right of the / is the transition time.

On Eos Ti, Eos, and Gio, you can lock this mode by pressing **[Shift] + [Time]**. When in display time mode, “Timing Latched” will display in the upper left of the live display and the **[Time]** key will be lit in green on Eos Ti and Gio. To exit this mode, press **[Shift] + [Time]** again.

On Ion, you can lock this mode by pressing **[Shift] + [Time] [Time]**. To exit this mode, press **[Shift] + [Time]**.

Category Time in PSD

When the **{PSD Time Countdown}** setup option (**Setup> Desk> Displays**) is enabled, each category time will individually turn gold when that timing has completed.



Manual Control Changes

Changes in this section impact the Basic Manual Control or the Advanced Manual Control chapter.

Rem Dim /

Rem Dim levels can either be an absolute value, such as Full or 50%, or a proportional value, which would set the levels to a percentage value of their current levels. To use a proportional value, press **[/]** before entering the percentage value.

For Example:

Assume that channels 1 through 10 are selected and set to an intensity level of 60. Select channel 1 and dim the remaining channels.



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- **[1] [Rem Dim] [/] [5][0] [Enter]**

Channels 2 through 10 will be dimmed to 30.

Highlight Rem Dim

To temporarily override the **{Highlight Rem Dim}** option in Setup, you can use either of the following syntax examples:

- **[channel list] [Highlight] [Rem Dim] [#] [Enter]**
- **[channel list] [Highlight] [Rem Dim] [/] [#] [Enter]**

[-] [Select Manual] / [Select Active]

[-] [Select Manual] or **[-] [Select Active]** can be used to modify channel selections. Using **[-] [Select Manual]** will select all of the channels in the list except those that have manual data. Using **[-] [Select Active]** will select all of the channels in the list except those that are active.

- **[1] [Thru] [2] [0] [-] [Select Manual] [Enter]** - selects channels 1 through 20 except any channels that currently have manual data.

[1] [Thru] [2] [0] [-] [Select Active] [Enter] - selects channels 1 through 20 except any channels that are currently active.

[Undo] [Undo] [Enter]

Pressing **[Undo] [Undo]** will scroll to the most recent undo-able command in the command history display. To undo the command, press **[Enter]**.

Capture Latch

Previously Capture Latch would be enabled for all users when it was enabled by one user. Now Capture Latch works on a user by user basis. For more information on using Capture Latch, see the Using **[Capture]** section of the Advanced Manual Control chapter.

Recording and Playback Changes

Changes in this section impact the Cue Playback, Storing and Using Submasters, or Using Partitioned Control chapters.

Loading a Cue with Temporary Time

A cue can be loaded with a temporary time.

- **[Cue] [3] [Time] [6] [Load]** - loads cue 3 with the manual time of 6.



Note:

For multipart cues, the temporary time will be applied to the entire cue, not just the part on the command line.

For cues with discrete timing, its parameters will use the temporary time instead of the assigned discrete timing.

Submasters

The number of submasters has increased to 999. The number of fader pages available is still 30, which means that there is still a limit of 300 submasters being used with physical faders at a time.

Partitions on Cue Lists

A partition may be assigned to a cue list. If a partition has already been applied to a cue list, any channels not in the cue list's partition will not be included in cues when they stored or replayed.

Any data for a cue list that already existed before a partition is applied, will be maintained, including data for channels not included in the partition. If data existed before the partition was assigned, in

blind, channels that are not in the partition will display without a channel graphic, any levels will be in gray, and a small superscript N will display with it.



Channels that were initially saved in the cue list but are not in the currently assigned partition

Assigned partitions will display in the external links column in the cue list index.

To assign a partition to a cue list:

- **[Cue] [n] [/] {Partition} [n] [Enter]**

To remove a partition from a cue list:

- **[Cue] [n] [/] {Partition} [Enter]**

Working with a Single Cue List Changes

Changes in this section applies to the Working with a Single Cue List chapter.

Auto-block Cleanup

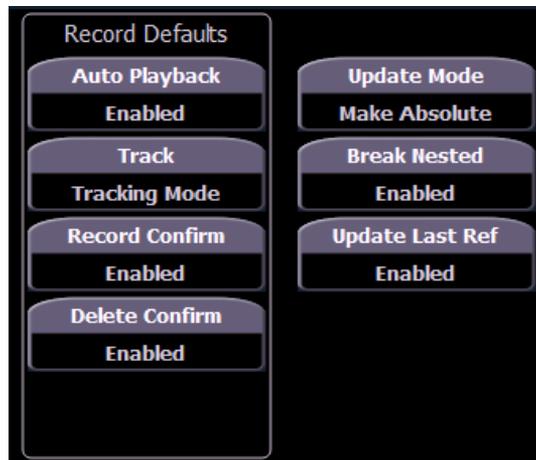
Cues that have auto-blocks will display a underscored b in the PSD. **{Autoblock Clean}** is used to remove all auto-blocks from a single cue, cue range or entire cue list. **{Autoblock Clean}** is a softkey that will be posted when a cue list and/or cue number are on the command line in the Cue List Index, Live, and Blind. A range of cues or a cue list can be specified with this command.

For Example:

- **[Cue] [1] [/] {Autoblock Clean} [Enter]** - clears all auto-blocks from cue list 1. Only blocks displayed with the white underscore are removed. If the **[Block]** key was previously used, this command will not unblock it.
- **[Cue][1] [/] [1][0] [Thru] [1][0][0] {Autoblock Clean} [Enter]** - clears the auto-blocks just from cues 10 through 100 of cue list 1.

Default Update Modes

The default Update modes have changed. Eos defaults to Make Absolute for the **{Update Mode}**, with **{Break Nested}** and **{Update Last Ref}** enabled.



Default Update Setup Options

Timing Disable

This change affects the Setup and Cue Playback chapters.

You can assign a separate time value for **[Timing Disable]** in **Setup> Desk> Manual Control> Default Times> Timing Disable**. When a fader has been set to timing disable mode, cues will use the time set in Setup. The default time is 0.

[Shift] + [Go] and [Shift] + [Back]

[Shift] + [Go] and **[Shift] + [Back]** can be used to cut to the next cue in the same way as **[Timing Disable] + [Go]** and **[Timing Disable] + [Back]**.

Show File

An indicator has been added to show when a show file has been modified but not saved. An asterisk (*) will display beside the show file name.



Mirror Mode

This change affects the Mirror Mode section of the Multi-console and Synchronized Backup chapter.

A device that is currently in mirror mode can select which user number it is mirroring by using the alphanumeric keyboard shortcut **M + #** (# being the user number). **M + ESCAPE** can be used to leave mirror mode.



Note:

If a device is not currently in mirror mode, pressing M on an alphanumeric keyboard will post Mark to the command line.

Collapsing PSD Columns

This change affects the Playback Status Display section of the System Basics chapter.

To collapse a column in the Playback Status Display, press **[Escape]** while clicking on the column you want to collapse. Press **[Shift] + [Select]** to bring back all of the collapsed columns.

Magic Sheets on Direct Selects

Magic Sheets can now be accessed from the direct selects. Clicking on a magic sheet direct select will open the Magic Sheet tab and display the selected magic sheet. Pressing a different magic sheet direct select will change the displayed sheet.

Using Park Changes

Changes in this section impact the Using Park chapter.

Recall From Park

You can use **[Recall From] [Park]** to set a channel or parameter to the same level as the current park value.

For Example:

Let's assume that channels 1 through 5 are parked at 55. To recall that level to channels in live or blind, use the following syntax:

- **[1] [Thru] [1][5] [Recall From] [Park] [Enter]**

Channels 1 through 5 will be set to 55 and channels 6 through 15 will be unaffected.



Note:

This does not release the Park buffer.

[Thru][Thru] in Park

When parking a range of addresses in Park, using **[Thru]** will only park the intensities. If you want to park all of the addresses and parameters within the selected range, you will need to use **[Thru] [Thru]**.

Patch Changes

Changes in this section impact the Patch chapter.

{Swap} in Patch

Additional options have been added to **{Swap}** in Patch.

- **{Swap}** - swaps only the patched address
- **{Swap} {Plus Show}** - swaps all show and patch data
- **{Swap} {Only Show}** - swaps only the show data and not patch data
- **{Swap} {Plus Patch}** - swaps addresses and patch data but not show data

Fixture Editor Parameters

The fixture editor parameters list is now displayed in alphabetical order.

[Thru] [Thru]

This change applies to the Multipart Cues chapter.

[Thru] [Thru] can be used in blind to create multiple cue parts in a range. For example, **[Cue] [1] [Part] [1] [Thru] [Thru] [4] [Enter]** will create parts 1 through 4. If you were to use just **[Thru]** instead of **[Thru] [Thru]** in that example you would create parts 1 and 4.

Subgroups

This change applies to the Using Groups chapter.

You can create subsets of channels within a group by using **[Shift] + [/]**. **[Shift] + [/]** will create parentheses. These subsets of channels or subgroups are treated as a single channel in the following ways:

- When applying absolute or relative effects from live, the subgroups are treated as a single channel by the effect.
- When setting a range of step's channels on a step based effect, the subgroup will not be spread out amongst multiple steps.
- When the group is selected and next/last is pressed, each subgroup is traversed.
- When a group has subgroups, **{Reverse}**, **{Reorder}**, and **{Random}** in the group editor will affect the subgroups instead of the channels in each subgroup. **{Reorder}** will order the groups based on the first channel in each group.

Subgroups can be created either in the group list or live.

Group List Display		Subgroups
Group	Label	Channels
1		(1>2) (3) (4) (5) (6>7)

To create a subgroup in live:

- **[Shift] + [/] [1] [Thru] [4] [Shift] + [/] [Record] [Group] [2] [Enter]**

To create a subgroup in the group list index:

- **[Group] [2] [Enter] [Shift] + [/] [1] [Thru] [4] [Shift] + [/] [Enter]**



Note: *Fan is not currently supported with Subgroups.*

Managing Show Files Changes

Changes in this section impact the Managing Show Files chapter.

Importing Custom Gobo Images

Custom gobo images can be imported by going to **Browser> Import> Gobo Images** and selecting an image file or folder. If a folder is selected, all image files within the folder will be imported. All standard image files are supported with the exception of .svg files.

Imported gobo images can be deleted by going into **Browser> Import> Gobo Images> Imported Gobos**, selecting the image, and pressing **[Delete] [Enter]**.

Imported Media and Partial Show Open/Merge

A new tile, **{Media}** has been added to the Partial Show Opening and Merge displays. Media is imported gobo and magic sheet images.



Note: *Media will be included by default when you select Patch, Fixtures, or Magic Sheets.*

Virtual Media Server

Changes in this section impact the Virtual Media Server chapter.

Number of Pixel Maps

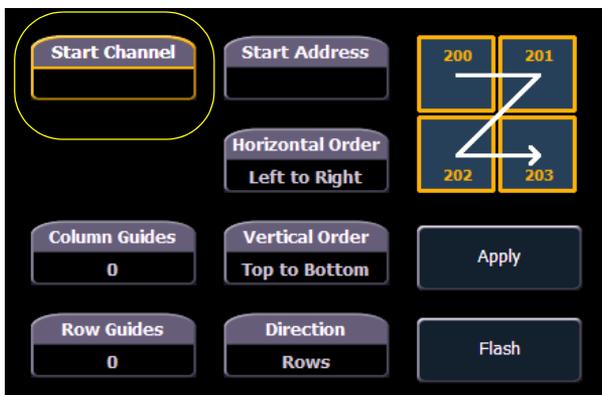
The number of pixel maps per show file is now 40. Previously it was limited to 10 maps.

{Flash}

The **{Flash}** softkey is available in the Pixel Map Editor display. **{Flash}** works the same as it does in Live. See the section on Flash in the Basic Manual Control chapter for more information.

Patch by Channel

An option for setting the starting channel has been added to the Edit display for mapping channel-based pixels.



- When either **{Starting Channel}** or **{Starting Address}** is selected, both fields will be cleared.
- Address-based pixels can not overlap with channel-based pixels. This includes the entire DMX fixture footprint.
- If using **{Starting Channel}**, any overlapping channel-based pixels will be removed and any overlapping address-based fixtures will be unpatched.
- If using **{Starting Address}**, any overlapping address-based pixels will be removed and any overlapping channel-based fixtures will be unpatched.
- When the **[Data]** key is latched, the address for channel-based pixels will display.
- When **[Format]** is pressed, the address will toggle between port/offset and address number.

Park and Address Check

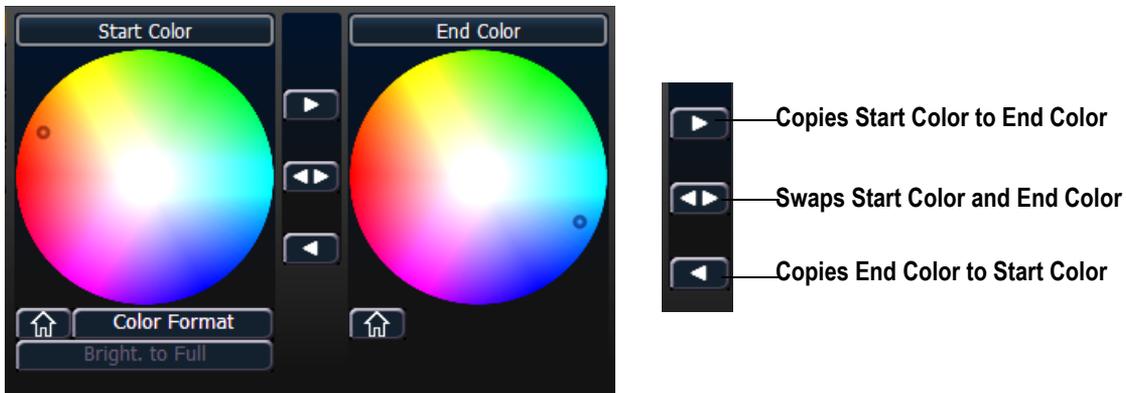
You can use Park and Address Check for Virtual Media Server outputs.

Color Picker

A second color picker has been added for virtual effect layers. The second color picker will be labeled as End Color and will control RGB2.

Copying Color

You can copy or swap a color between the two color pickers using the buttons located between the two color pickers.



FDX Dimmer Feedback

ECU Settings

Changes in this section impact the ECU appendix.

FDX Feedback

Clicking in the enable box will allow Eos to receive FDX dimmer feedback over the network.

Broadcast Type

- Directed Broadcast - Broadcast packets are directed to a subnet based on the IP address and subnet mask of the sender.
- Limited Broadcast - The limited broadcast address is 255.255.255.255. It is limited because routers will never forward datagrams with that destination address. This means that datagrams with the limited broadcast address are confined to the particular network segment on which they originate.

About System

Changes in this section impact the About chapter.

Clicking on a FDX rack in the **{About System}** list will open the About Rack display, which shows the following information about the rack:

- Rack number
- Rack Type
- Phase A,B,C Voltages
- Frequency
- System Number
- IP Address
- Software Version

Device List

For information about FDX Dimmer feedback, see the Device List section in the Patch chapter.