



COLOUR COPY



User Guide

Version 1.0

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Introduction

About Colour Copy

Colour Copy grew out of *Lyrebird*, the delay unit we built into our *Repro* synthesizers. We soon realised that the sound was too good NOT to be developed further. So here it is...

Two important details

- 1) While the left and right outputs can take their signal from any point (“tap”) along the delay line, the two channels always have the same total length, which determines the *repeat rate*. The animated graphic shows that the input signal always reaches the end of the delay before reappearing on the left, irrespective of the tap positions (L, R).
- 2) Like a real BBD (bucket-brigade delay), Colour Copy’s RATE knob does not affect the number of samples used, but the rate at which the fixed number of "buckets" pass on their content. If you quickly adjust the delay on most digital delays, unmusical glitches appear as the length of the buffer changes. Like a real BBD, this doesn’t happen in Colour Copy: it is smooth.

Installation

Go to www.u-he.com/colourcopy, download the installer for your system (Mac or PC) and unzip the compressed file. Open the “ColourCopy” folder, start the installer and follow instructions. The only demo restriction is a mild crackling sound at irregular intervals after about two minutes of use, which disappears after entering a valid serial number. For more information including our terms of use, please refer to the “ReadMe” file that comes with the installer.

Colour Copy uses the following directories by default:

Windows

Presets (local)	...\\VstPlugins\\u-he\\ColourCopy.data\\Presets\\ColourCopy\\
Presets (user)	...\\VstPlugins\\u-he\\ColourCopy.data\\UserPresets\\ColourCopy\\
Preferences	...\\VstPlugins\\u-he\\ColourCopy.data\\Support\\ (*.txt files)
Alternative skins	...\\VstPlugins\\u-he\\ColourCopy.data\\Support\\Themes\\ (skin folder)

macOS

Presets (local)	MacHD/Library/Audio/Presets/u-he/ColourCopy/
Presets (user)	~/Library/Audio/Presets/u-he/ColourCopy/
Preferences	~/Library/Application Support/u-he/com.u-he.ColourCopy... (*. files)
Alternative skins	MacHD/Library/Application Support/u-he/Themes/ (skin folder)
Other resources	MacHD/Library/Application Support/u-he/ColourCopy/

u-he Online

For downloads, news articles and support, go to the [u-he website](http://www.u-he.com)

For lively discussions about u-he products, go to the [u-he forum](http://www.kvr.com) at KVR

For friendship and informal news updates, go to the [u-he facebook page](https://www.facebook.com/uhecom)

For u-he presets (commercial and free), go to the [u-he patch library](http://www.u-he.com)

For video tutorials and more, go to the [u-he youtube channel](https://www.youtube.com/uhecom)

Overview

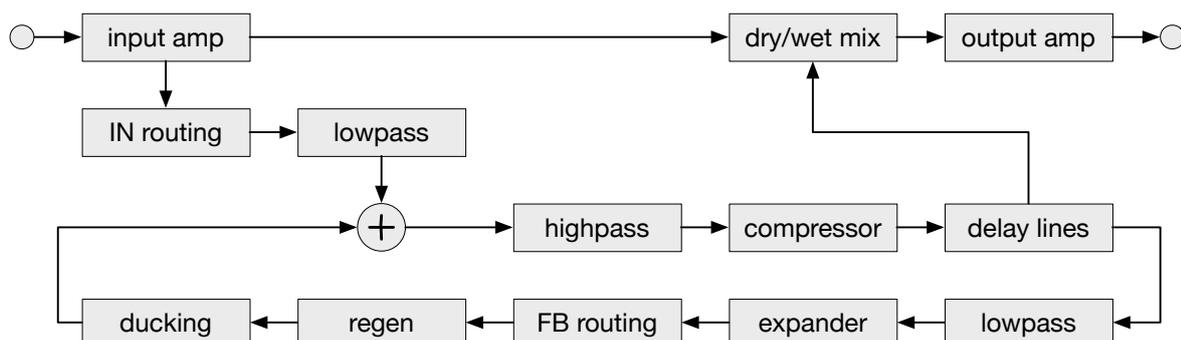
Click on the numbers to go directly to the appropriate section of this user guide.



- | | | |
|--|--------------------------------------|---------------------------------------|
| 01. BYPASS | 14. Stereo WIDTH | 27. Ducking Target |
| 02. Undo / Redo | 15. Dry/Wet MIX | 28. Ducking THRESHOLD |
| 03. Data Display | 16. OUTPUT Gain | 29. COLOUR |
| 04. HQ (higher quality) | 17. MAKEUP | 30. Noise Floor |
| 05. PRESETS | 18. KEY CONTROL | 31. BRIGHTNESS |
| 06. SAVE | 19. TIME BASE | 32. SATURATION |
| 07. u-he badge | 20. PANIC | 33. LFO Target |
| 08. Configuration | 21. INPUT Routing | 34. LFO Waveform |
| 09. INPUT Gain | 22. FEEDBACK Routing | 35. LFO FREQUENCY |
| 10. Delay RATE | 23. Feedback INVERT | 36. LFO Freq. DYNAMIC |
| 11. REGEN (regeneration) | 24. Label | 37. LFO DEPTH |
| 12. Left Tap Position | 25. Freeze | 38. LFO Depth DYNAMIC |
| 13. Right Tap Position | 26. Ducking Mode | 39. LFO STEREO PHASE |

Basic Signal Flow

All routes in this diagram are stereo. LFO modulation paths are not shown here. The filters and compressor/expander are controlled by the Feedback Colouration parameters.



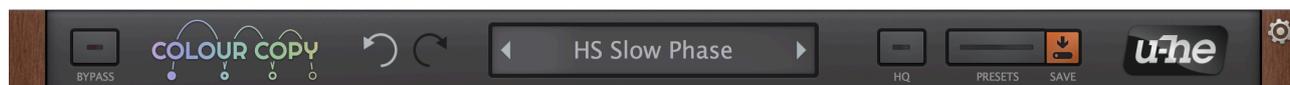
Controls

Adjust the knob values by clicking and dragging vertically. For fine control, hold down a SHIFT key first. Alternatively, you can hover over any control and roll the mouse wheel. Double-click to reset to the default value.

The delay tap positions **L** and **R** are adjusted by dragging them horizontally, also with fine control via SHIFT. Hold down **cmd** (Mac) or **alt** (Win) to force L or R to snap to the nearest note value.

Upper Bar

The narrow bar along the top of the window offers various global tools and options:



BYPASS

Connects the input directly to the output so that the audio signal is not processed. Although the status of the BYPASS button is not saved with each preset, it can differ per instance.

Undo / Redo

The curved arrows let you step backwards or forwards through the edit 'history'. Note: Undo even works if you happen to select a new preset by mistake before saving your edits.

Data display

The display field in the centre normally shows the name of the preset. While a parameter is being edited it shows the name and value of that parameter. Simply moving the mouse pointer ("hovering") over a control also displays its value.

You can also load presets here: Click on the arrows to step through them or click on the data display to open a drop-down list (for the current folder only). Of course Colour Copy also features a complete browser – see the [Preset Browser](#) chapter.

SAVE

Opens a dialog box in which you can enter some helpful text before finally storing the preset with the 'Apply' button. If you can't see your newly saved preset in the currently selected folder, check the status of the preference [Save Presets To](#).

Right-click on the SAVE button beforehand to specify the format. The standard is *.h2p*, which has the advantage of being cross-platform compatible. The *.h2p extended* format is the same but also allows per-line comments. If you have loaded the VST2 version of Colour Copy you will also see the option *.nksfx* at the bottom of the list – see the [NKS](#) chapter.

PRESETS

Opens the browser (see the [Preset Browser](#) chapter).

HQ

Higher quality at the cost of CPU usage (44.1kHz or 48kHz only). Like BYPASS, the HQ status is not saved with each preset, but may differ per instance.

Note: To ensure phase alignment the dry signal is delayed with the same latency as the wet signal, and this value depends on the HQ status. Colour Copy reports any change in latency to the host (i.e. your sequencer) on reset, but how the host reacts is beyond Colour Copy's control. If switching HQ on adds a significant delay, please check the host documentation for details, and contact the host developer if absolutely necessary.

u-he badge



Click on the badge to open a menu containing links to this document, to our website, to our user support forum and to our social network pages.

Configuration

Clicking on the **cogwheel** icon at the top right opens the configuration pages for access to MIDI control and to several global preferences. See the [Configuration](#) chapter.

Main Panel

The central panel contains the basic elements you will find on most delay units plus a few extras that are unique to Colour Copy:

INPUT Gain

-24.00dB to +24.00dB. Like a real BBD stomp box, Colour Copy's delay "circuitry" is sensitive to input levels: Adjust INPUT just like you would your instrument volume before the BBD. The green saturation indicator turns red whenever clipping occurs. See also OUTPUT below.

RATE

RATE is a bipolar speed factor relative to the selected TIME BASE (see below). The range is 1/4 speed at minimum (-100) to 4x speed at maximum (+100).

REGEN

Regeneration, the amount of delayed signal that is fed back into the input. Note that values above 70% can cause delays to build up instead of decaying – see PANIC below.

MAKEUP

Global option: The INPUT knob automatically adjusts OUTPUT gain in the opposite direction.

KEY CTRL

The delay rate can be modulated by MIDI note: Try setting up **very** short delays and turning up REGEN (regeneration). For details about how to route MIDI into effect plug-ins such as Colour Copy, please refer to the host (DAW/sequencer) documentation.

TIME BASE

Duration of the delay when RATE is 0.00. The options are absolute times 1s / .1s / .01s / .001s as well as times that are synchronized to the the song (host BPM). The latter are listed as 4/4 bar divisions from 1/32 to 2/1, including dotted notes and triplets.

PANIC



Immediately stops feedback. Whenever you hear delays building up instead of decaying, click here. Before resuming work, either turn REGEN down a bit or adjust the Colour parameters until the feedback is under control.

L/R Tap Positions

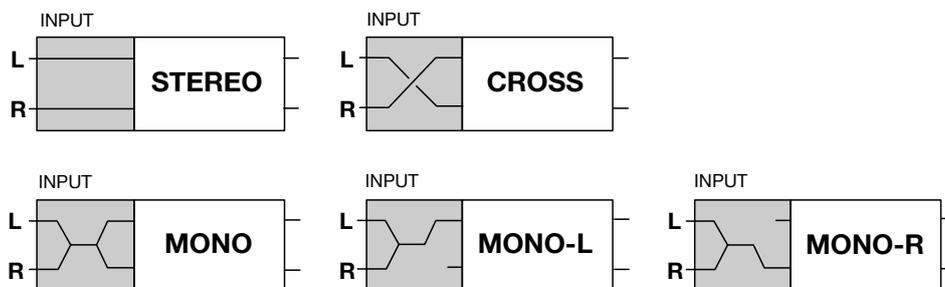
To reposition the taps, click anywhere along the delay lines or click and drag the L and R pointers horizontally. You can also “hover” anywhere and roll the mouse wheel.

Hold down a SHIFT key for fine control. Double-click to set the maximum. To snap to the nearest note value, hold down **cmd** (Mac) or **alt** (Windows) before clicking & dragging.

INPUT Routing

Even the input routing in Colour Copy is flexible, allowing the two channels to be swapped or mixed to either delay channel. In combination with feedback routing (see below), a wide variety of effects is possible, although the differences depend on the audio being processed.

Click on the INPUT routing icon for the following options:



StereoInputs are routed to the same delay lines (R to R and L to L).

CrossInputs are routed to the other delay lines (R to L and L to R).

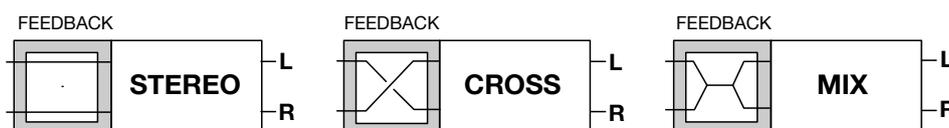
MonoInputs are summed and routed to both delay lines.

Mono-LInputs are summed and sent to the left delay line only.

Mono-RInputs are summed and sent to the right delay line only.

FEEDBACK Routing

Colour Copy offers a similar degree of control over how the signal is fed back: The two channels can be swapped or mixed together. Note that you will only hear a difference between these three options if the left and right channels of the signal being fed back differ in some way, for instance with a stereo input signal or via stereo rate modulation.



StereoDelay outputs are fed back into the **same** inputs (R to R and L to L).

CrossDelay outputs are fed back into the **other** inputs (R to L and L to R).

MixDelay outputs are summed and fed back into **both** inputs.

WIDTH

Stereo width of the delay signal.

MIX

Balance between wet and dry signals.

OUTPUT Gain

-24.00dB to +24.00dB. As Colour Copy's circuit models are also sensitive to output levels, we decided to include an output gain control. Whenever clipping occurs, the indicator turns red. See INPUT Gain above.

INVERT

Inverts the feedback signal. Often rather subtle, the effect of activating INVERT is especially noticeable if the TIME BASE is so short that regeneration results in a pitched note (in which case INVERT drops the pitch an octave and often gives the sound a hollow quality).

Label

Double-click on the "air vent" between the *invert* and *freeze* buttons to add a text label (maximum 16 characters). Right-click there to select the background colour. Tip: Use different colours to distinguish between multiple instances of Colour Copy more easily.

FREEZE

This loops the delay indefinitely. All feedback distortion, filters, gains etc. are ignored, but [modulation](#) will still affect the sound. Note: The feedback routing is automatically switched to FREEZE (this is practically the same as STEREO mode).

IMPORTANT: Cubase has a preference "suspend VST3 plug-in processing when no audio signals are received" which cuts off FREEZE after a few seconds unless you keep sending audio or MIDI. The same option also silences normal regenerating delays after a short while. If you are using VST3 and your host includes such an option, either disable it or load Colour Copy in a format other than VST3 (e.g. VST2)!

Lower Panel

Ducking

Regeneration is suppressed by any transients in the input signal that exceed the specified Threshold (see below). Traditionally used to prevent delays from overpowering the direct signal.

MODE (unlabelled)

Ducking response *OFF / FAST / MEDIUM / SLOW*. Listen to all these options at various threshold levels (see below) and let your ear decide on the most appropriate mode for the audio you are currently processing.

TARGET (unlabelled)

AMPStandard ducking – the amplitude of the entire delay signal is suppressed.

FBOnly the feedback signal is suppressed so that the very first delay remains unaffected! This unusual method results in a more subtle ducking effect as it preserves the overall stereo space while reducing the sonic mayhem that regeneration can easily cause.

THRESHOLD

Sets the minimum input signal level (-48dB to +24dB) at which ducking occurs.

Feedback Colouration**COLOUR**

Morphs smoothly between the 5 colours – different sets of values for a bunch of internal variables (filters, distortion, compression etc.). Note that the dry signal remains 100% clean.

RESOWell-behaved resonant colour with mild distortion and mild lowpass filtering. The compander is set to react quite slowly. Its wide working range but low ceiling helps prevent resonance build-up without adding too much distortion. Although the frequency range only goes up to 5kHz, the strong resonance ensures plenty of highs.

SPARKLEThe brightest mode, with early distortion and shallow lowpass / highpass filtering (-6dB filter response at cutoff). The compander has a moderate working range and a slow response. When the regeneration is turned up, feedback noise tends to build up more quickly than it does with the other colours.

FUZZVery similar to u-he Repro's Lyrebird effect in *dark* mode, with quite a strong resonance. This colour has several unique characteristics, for instance that filter cutoff depends on the Rate. To recreate the original Lyrebird sound, adjust the input gain to about +12dB and compensate by turning the output gain down.

SNAPThis colour has a wide, flat frequency response with a steep cutoff at both ends of the spectrum. The compander has a narrow working range and reacts rather quickly. The timing offset between the compression and expansion accentuates any transients in the signal.

DUSKWith its quite narrow, bass-focussed response, this colour quickly loses high frequencies and has very soft distortion. The compander timing is set up to soften transients, and because its working range starts so low, the noise floor is pushed up whenever the signal gets stronger.

Depending on the REGEN, MIX and SATURATION settings, the differences between these colours might not be obvious at first... Listening to a 100% wet signal with minimum latency makes their characters clearer: Set both taps to the left (0%) and turn MIX and SATURATION both up to maximum.

FLOOR

Switch this up to *VINTAGE* to add a BBD-typical constant noise floor, or set it to *LOW* for the minimum noise floor.

BRIGHTNESS

Adjusts feedback filter parameters to successively dampen or brighten the delay signal.

SATURATION

Set to 0% for the cleanest possible delays, or to 100% for maximum analogue colouration.

Note: Under certain conditions e.g. heavily modulating the tap positions while applying heavy DYN, the compander can cause serious peaks in the delay buffer. If you notice this effect, try turning SATURATION down a little.

Modulation

These parameters give the delay some cyclic animation. Modulation is not only essential for chorus or flanger type effects, but is also useful for creating more “lively” spaces.

TARGET (unlabelled)

RATEThe LFO modulates RATE. The depth depends on the length of the delay so that the modulation depth appears fairly constant, whatever the TIME BASE / RATE.

RATE +The LFO modulates RATE, but this mode always gives you the full modulation range from 4 times slower to 4 times faster.

TAP POSThe LFO modulates both tap positions for a chorus effect on top of the delay.

AMPThe LFO modulates the amplitude of both channels for pan or tremolo effects.

WAVEFORM (unlabelled)

Sine or triangle wave modulation.

FREQUENCY

Controls the speed of the LFO between 0.05Hz and 20Hz (as times: 20s to 50ms).

DYN (FREQUENCY DYNAMIC)

How much the input signal (via an envelope follower) modulates LFO Frequency.

DEPTH

Modulation intensity.

DYN (DEPTH DYNAMIC)

How much the input signal (via an envelope follower) modulates LFO depth.

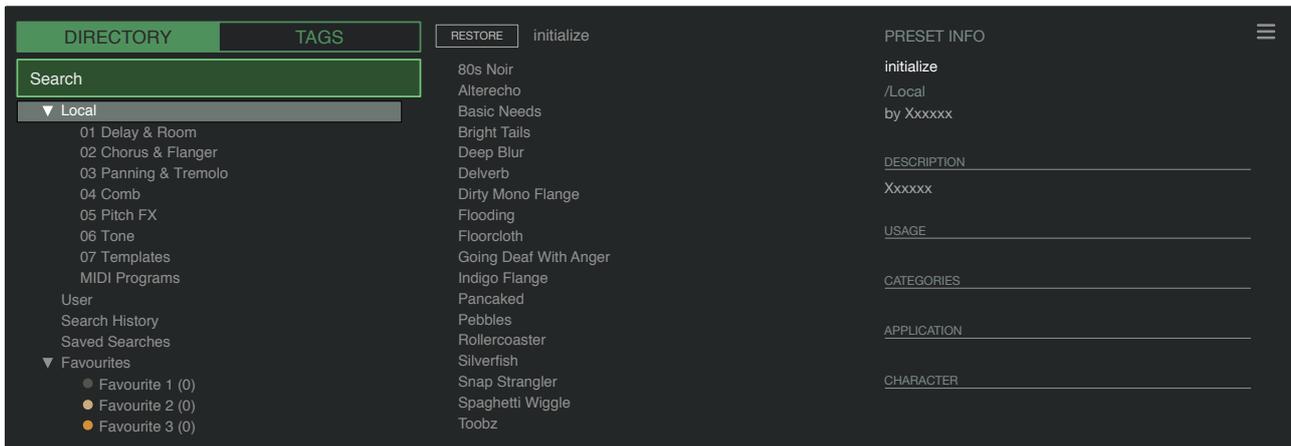
STEREO PHASE

Controls the phase difference between the left and right LFO signal: At 0°, modulation is the same in both channels, while at 180° it moves in perfect opposition – turn up the DEPTH and watch those indicators!

Preset Browser

“You will only recognize the beauty of a preset if you run the ‘right’ audio through it”

As mentioned above you can load presets by clicking on the data display, or step through them by clicking on the arrow symbols. However, Colour Copy also includes a powerful preset browser. Click on the PRESETS button and select the DIRECTORY tab to open this view:



Folders appear on the left, presets are listed in the centre and information about the currently loaded preset will appear on the right (PRESET INFO: the path, author, description etc.. won't appear until a preset is selected).

The 'Local' root contains a small selection of presets copied from the subfolders. After loading a preset (by clicking on its name) you can step through all the others using the cursor keys.

If no presets appear in the central area, click on 'Local' or one of its subfolders. If you don't see a 'PRESET INFO' label on the right, click on the [≡] button (top right) and select *Show Preset Info*.

that's all you need to know for now...

If you would like to dig deeper, however, Colour Copy's browser offers several interesting features including a powerful search engine. For details, read the rest of this chapter.

Default preset

When a new instance of Colour Copy starts it checks whether the 'Local' root directory contains a preset called simply 'default', which is then loaded instead of the standard one. If you would like to change the default preset, make sure that the *Local* folder is selected and [SAVE] the one you want under the name "default". Note: Even if it exists, 'default' won't appear in the browser.

If a fresh instance of Colour Copy is not loading your new default preset, it probably landed in the 'User' folder instead of 'Local' – see the preference [Save Presets To](#).

Directory Panel

If the DIRECTORY tab is selected you will see the following folders:

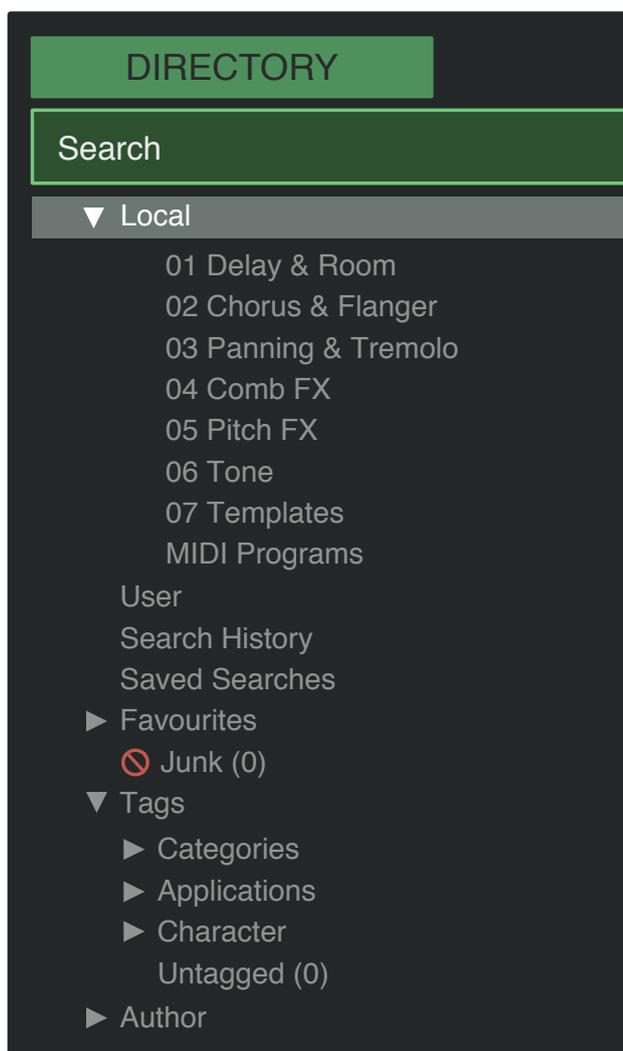
Local

Colour Copy's factory presets are sorted into 7 subfolders within 'Local'...

It's worth finding out where the 'Local' folder resides on your computer: Right-click on 'Local' and select the function *reveal in Finder (Mac) / open in Explorer (Windows)*.

Tip: It is best not to touch the contents of 'Local', but to put your own creations and any third party soundsets in the 'User' folder – see the next page!

MIDI Programs



The 'Local' root also contains a folder called 'MIDI Programs' which is normally empty. When the first instance of Colour Copy starts, all presets (up to 128) in this folder are loaded into memory so they can be selected via MIDI "Program Change" messages.

Note: Some hosts route all received MIDI data directly into effect plug-ins by default, while others expect you to set this up yourself. For information on how to do this, please refer to the documentation of your host / DAW.

As the presets in MIDI Programs are accessed in alphabetical order it is best to rename them, prefixing each one with an index. For instance "000 rest-of-name" to "127 rest-of-name".

Unlike regular presets, MIDI Programs cannot be added, removed or renamed on the fly. Any changes are only updated after the host has been restarted!

MIDI Programs can contain up to 127 sub-folders (of 128 presets each), switchable by a MIDI 'Bank Select' message (CC#0) before the Program Change message. 'MIDI Programs' is bank 0, while any sub-folders are addressed in alphabetical order starting with bank 1.

When Colour Copy receives a MIDI Program Change message, it will display the bank and program numbers to the left of the preset name (e.g. "0:0" for the first preset in the first bank). In certain hosts, however, the first bank / preset is designated "1" instead of the correct "0".

To avoid another possible source of confusion, please make sure that there are no *junked* presets in the MIDI Programs folder: All files there are addressed, even if they are hidden.

User

The best address for your own creations as well as presets from other sources. You can either select 'User' immediately before saving, or set a global preference ensuring that it will always be saved to this folder (or a sub-folder) – see the preference [Save Presets To](#).

Tip: It's worth finding out where the 'User' folder resides on your computer: Right-click on 'User' and select the function *reveal in Finder* (Mac) / *open in Explorer* (Windows).

Smart Folders

The other top-level folders don't actually contain files, but the results of querying a database. The content is therefore dynamic; it will change whenever the underlying data changes. Note that if you delete any files from these folders, the referenced **originals** will be moved to the trash.

Search History

Click on the 'Search History' folder to display the results of any past searches (maximum 10). If you need to make the results of a search more permanent, right-click and select *save Search...* The entry will be moved to the 'Saved Searches' folder (see below). To clear the list, right-click on the 'Search History' folder and select *clear*.

Saved Searches

The 'Saved Searches' folder contains a list of results saved from 'Search History' via right click (see above). To remove individual entries, right-click and select *delete*. Tip: Entries dragged from 'Saved Searches' and dropped onto real folders within 'Local' or 'User' will create a folder containing real copies of all presets!

Favourites

8 smart folders, one for each Favourite colour (1-8). See *Presets context menu* on the next page. Presets dropped onto one of the 'Favourites' folders will be marked as such.

Junk

A smart folder pointing to all junked presets. See *Presets context menu* on the next page. Presets dropped here will disappear from the rest of the browser unless made visible (see *show junk* in the Presets context menu).

Tags

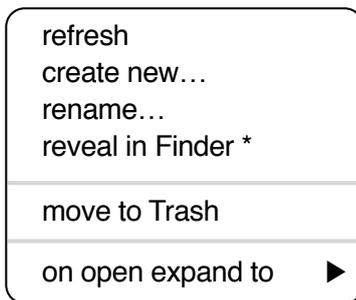
Smart folders for each *Category*, *Application* and *Character* tag. Presets dropped onto these folders will inherit the corresponding tag. Presets dropped onto the 'Untagged' smart folder will have all *Category*, *Application* and *Character* tags removed.

Author

Smart folders for each preset author. Tip: Instead of signing each of your creations individually you could sign just one of them then select and drag&drop them all onto your own author folder. As the process cannot be undone, please use this feature with caution!

Directory Context Menu

Right-clicking on any folder within 'Local' or 'User' will open a menu:



refresh: Update the contents of the browser. This is necessary after you have moved, added, removed or renamed any folders or presets using Explorer / Finder.

create new: Insert an empty subdirectory.

rename: Edit a folder's name.

reveal in Finder / open in Explorer: Open a system window showing the clicked folder. After adding, removing or renaming preset files or folders there, please remember to *refresh*.

on open expand to: These options determine how deeply the browser will open subdirectories whenever the GUI is opened again or the refresh function is called.

Presets Panel

The central, unlabelled area of the browser is where you click to load presets...

Presets Context Menu

Right-click to open a menu containing functions that can be applied to individual presets.



mark as favourite: Choose one of eight *Favourite* marks. The selected entry will be replaced with unmark as favourite.

mark as junk: Instead of deleting any unloved presets, you can mark them as 'junk' so that they disappear from the browser...

show junk: Activate this option to display junked files (see above) instead, but mark them with a STOP symbol.

select all, deselect: See Multiple selection below.

rename: Change the name of a preset using this function. Only the most recently selected preset can be renamed (you can't rename multiple files at once).

duplicate / copy to User Folder: The function here depends on the status of the preference [Save Presets To](#) whether the source presets are in the *Local* or *User* folder. Selected presets are copied with an index appended to the name (like the 'Auto Versioning' preference).

reveal in Finder / open in Explorer: Opens a system window for the selected preset. Remember to *refresh* the directory after adding, removing or renaming any preset files there!

convert to native / h2p / h2p extended / nksfx: Converts the selected preset(s) to the format previously selected via right-click on the SAVE button.

move to Trash / Recycle Bin: This function moves all selected preset(s) to the system trash - so please be careful. This also works on files in any of the smart folders (see above) i.e. the originals will land in the system Trash (Mac) / Recycle Bin (Windows).

Restore

While in the browser you can audition as many presets as you like without losing track of the one that was previously loaded: Clicking *Restore* will always get you back to where you started.

Multiple Selection, Drag & Drop

A block of adjacent presets can be selected via SHIFT+click, and individual presets can be added to the selection via *cmd-click* (Mac) / *ctrl+click* (Win). Presets can be moved to a different folder via drag & drop. Use SHIFT etc. to highlight the files you want to move, then drag them from the files area and drop them onto the target folder.

To deselect, either click on an unselected preset or choose *deselect* from the context menu.

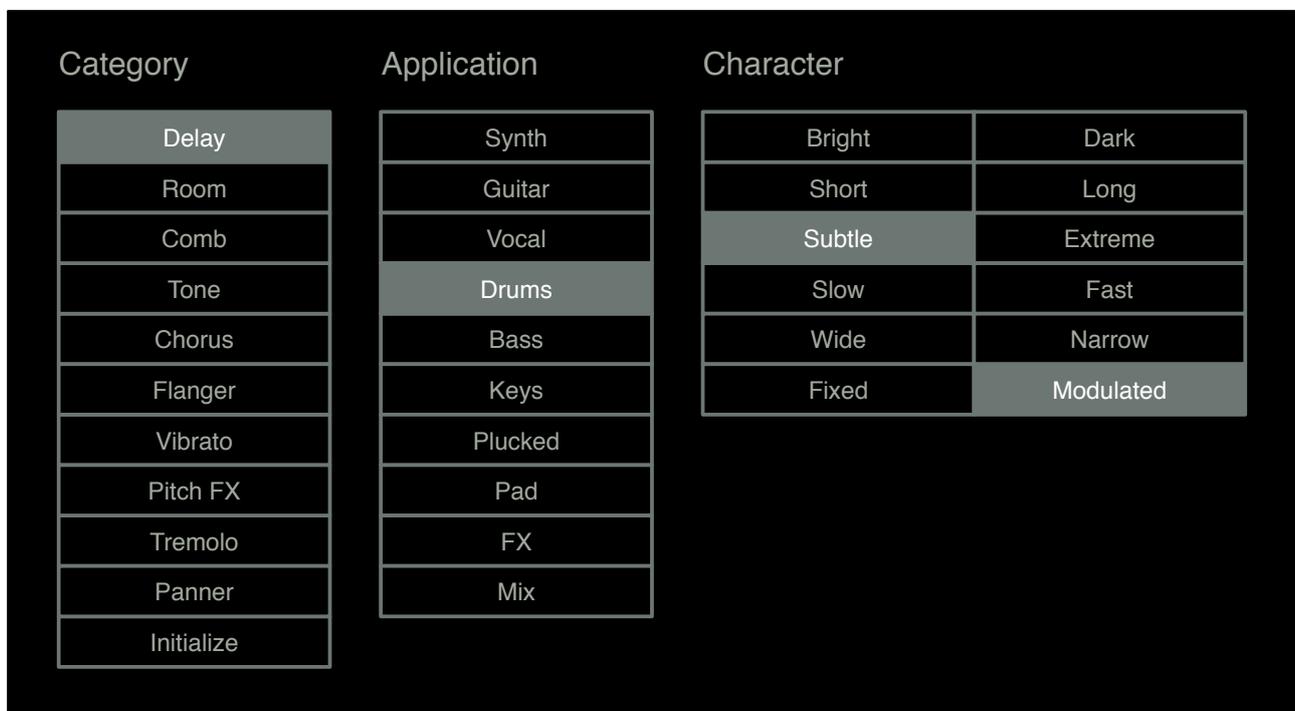
Preset Tagging

“Tags” are bits of metadata, information you can add to presets so that they can be found according to certain attributes.

IMPORTANT: Clicking on [SAVE] isn’t required, as tags are updated immediately. One obvious advantage is that presets don’t need to be saved every time you edit tags. The main disadvantage is that you should only edit tags after saving your preset: If you edited tags while in the process of creating a new version of something, you would also be changing the tags in the original preset!

The Tagging Window

Right-click on the [SAVE] button and select *Tag this preset*:



In Colour Copy, the *Category* tags describe a preset according to the type of effect, *Application* tags describe typical usage, and *Character* tags are pairs of more or less opposite attributes from which you can choose just one.

Tagging via PRESET INFO

In the PRESET INFO panel, right-click on CATEGORIES, APPLICATION or CHARACTER and select or unselect tags from the menu. Note: This method only works for individual presets.

The function *create Search from Tags* looks for presets with **all** the same tags.

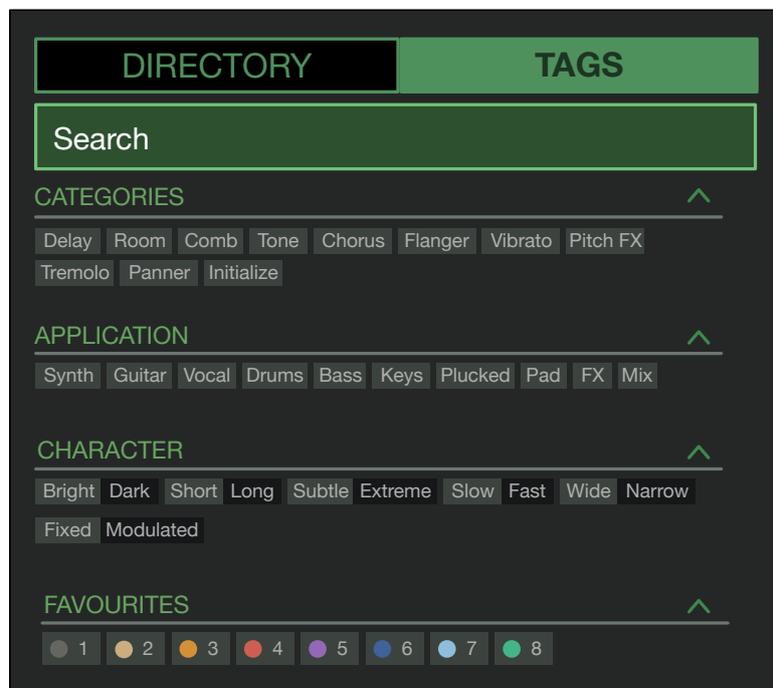
Tagging via the Tags smart folder

You can tag presets by drag & drop onto one of the *Tags* smart folders. To remove all tags, drag presets onto the 'Tags/Untagged/' smart folder.

Search Functions

Search By Tags

In the preset browser, click on the [TAGS] tab. The buttons let you set up search criteria according to existing tags with just a few mouse clicks.



There are four sets of buttons: The first three correspond to the tags in the tagging window (see the previous page), while the bottom row lets you find any presets tagged as *Favourites*. Clicking on the [^] icon to the right of each label hides the options for that set of tags.

Practically...

Click on the [DIRECTORY] tab, right-click on the 'Search History' folder and select *clear*. Double-click on 'Local' to restrict the scope to that folder (presets in the 'User' folder will not appear in the results). The selected path appears below the Search field. To exit, click on the [^] symbol.

Click on the [TAGS] tab and select the [Chorus] and [Panner] categories. Presets tagged with either will appear in the presets panel. Click on the DIRECTORY tab again: "#Modulation:Chorus #Dynamics:Panner" appears in the Search field as well as in 'Search History'. Adventurous souls can try editing the contents of the Search field now – the results will be updated accordingly.

Note: Unlike selecting multiple Categories tags, which expands the scope of the search, selecting Application, Character or Favourites tags restricts the scope i.e. you will probably get fewer hits.

Search by Text

The Search field lets you find presets according to a string of text. Here's an easy example: If you remember that the preset you're looking for has the word "space" in either its name or the description, simply enter "space" into the Search field and hit Return.

The search routine normally looks into the preset name, the author, the DESCRIPTION and USAGE (see the PRESET INFO panel). Searches are not case-sensitive, and quotes are not required unless you need to include spaces between multiple words.

To restrict the search to a particular path, double click on that folder. The path will appear immediately below the Search field. The [^] button to the left moves the search path up one level, while the [X] button to the right resets the search path to the default (i.e. all Colour Copy presets).

Try it: Enter three or four characters then hit Return. For instance, "sta" will find all files containing the text string "sta" (e.g. "instant" or "custard"). Entering "star wars" (including the quotes!) would find e.g. "Battlestar Warship", if such a preset existed.

Scope

You can limit the scope of the search to just the preset name or specific parts of PRESET INFO by using *name* (preset name), *author*, *desc* (*description*) or *use* (*usage*) followed by a colon. For instance, "author:the" finds all presets by sound designers whose author names contain "the". Similarly, "desc:space" will find all presets with the word "space" in the description.

Logic

These logical operators can be used between text strings, but not between tags:

AND requires that presets contain both words. It can be written explicitly or simply left out. For example, "star AND wars" or "star wars" will find presets that contain both "star" and "wars".

OR means that presets can contain just one of the words... or both. For example, "star OR wars" will find presets that contain "star" as well as presets that contain "wars".

NOT excludes presets containing the specified word. To find all presets that do contain "star" but don't contain "wars", enter "star NOT wars".

Including Tags

In the current version of the browser, text items must appear before any tags. For technical reasons, tags appear in the form #type:category (the *type* is invisible in the TAGS panel).

Tags can be entered into the Search field if preceded by a '#'. For example, "name:int #Delay" will find all presets with "int" as part of the name that are also tagged with the [Delay] category.

Please note that *Search by Text* is still work in progress. We hope to remove any remaining inconsistencies and improve the functionality in future versions!

Configuration

The cogwheel at the top right is your entrance to the global configuration pages. You can adjust the window size and brightness as well as Colour Copy parameters via MIDI remote control...

Click on the cogwheel and select Close [X], MIDI Learn [L], MIDI Table [≡] or Preferences [tools].

MIDI Remote Control

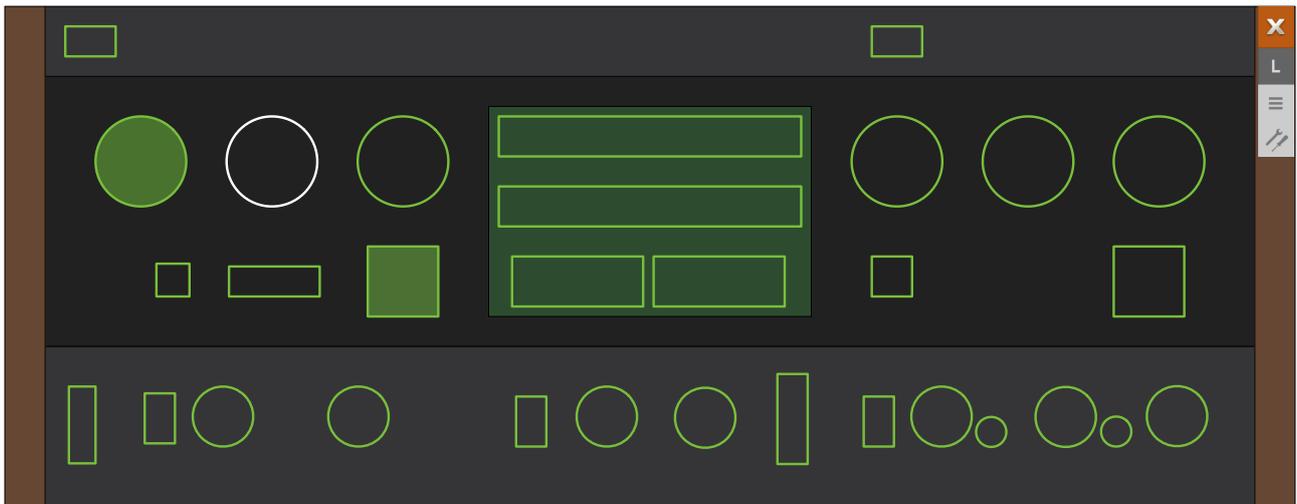
IMPORTANT: These MIDI assignments are truly global. They apply not only to all instances of Colour Copy in the current project, but to each instance in ALL of your projects.

MIDI Learn



This page lets you assign MIDI CC ('control change') to individual parameters. The CC data can be generated by hardware knobs / sliders or by tracks in the host application. For information about how to route MIDI data into effect plug-ins, please refer to the documentation of your host application.

To open the MIDI Learn page, click on the [L] button. It should look something like this:



This window shows all MIDI-learnable elements as selectable outlines. Those that are already assigned will appear filled (like INPUT and PANIC in the above image), and the currently active control i.e. the one ready to be MIDI-learned is highlighted (like RATE here).

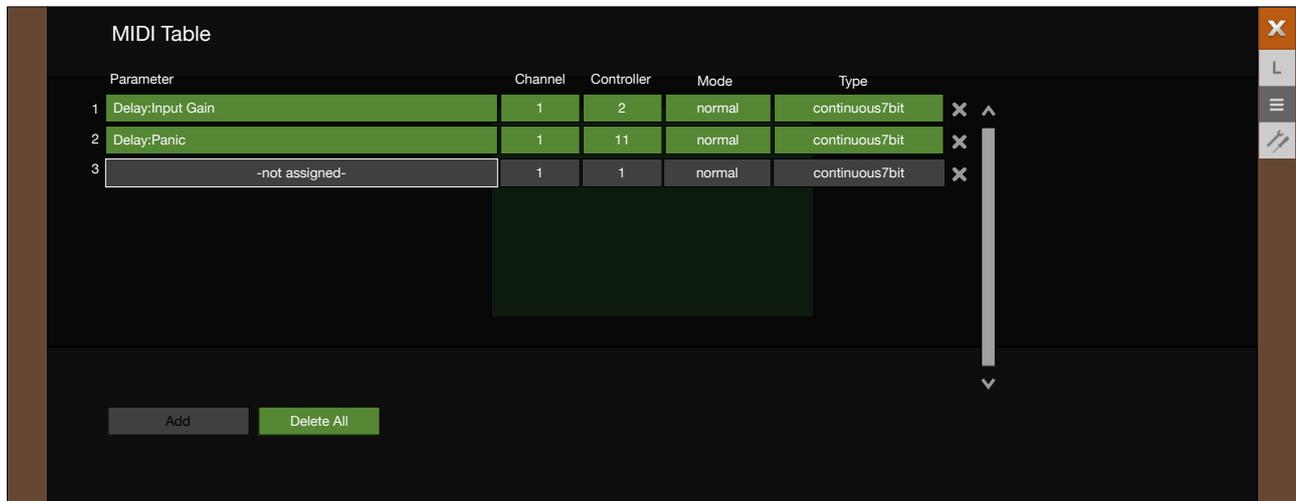
Try it: Click on the RATE knob then send Colour Copy some MIDI CC data: Wiggle a knob or slider on your MIDI controller to make the assignment.

If you don't want to keep the new CC connection, double-click on the knob to remove it.

MIDI Table



This page not only lets you review the MIDI assignments created using MIDI Learn, (see above) but also lets you edit them, including specifying the type of hardware control Colour Copy should expect. To open the MIDI Table page, click on this button. If a few assignments have already been made, it will look like this:



The **Parameter** field shows the assigned target. Click to select a different one.

At the bottom of the list is an experimental feature you should try: Select *Last Clicked Control*, enter the number of an unused controller your hardware can send and exit the configuration pages. The most recently clicked knob or switch will now respond to that CC. The *Fine* option is similar, but with a significantly reduced range.

The **Channel** and **Controller** fields specify the MIDI channel (1 to 16) and CC number (0-127).

The **Mode** setting specifies the range and/or resolution of values...

normal.....full range, continuous

integer.....full range, whole numbers only

fine.....0.01 steps between the two integers closest to the current value

The **Type** setting specifies the kind of hardware used (the most common is *Continuous 7-bit*)

Encoder127unipolar encoder

Encoder64bipolar encoder

Continuous7bit7-bit MIDI CC (normal resolution, common)

Continuous14bit14-bit MIDI CC (high resolution, rare)

Adding more assignments

You can either MIDI-learn them as described above, or click on the [Add] button at the bottom of the window then select Parameter, Channel etc. from the options lists.

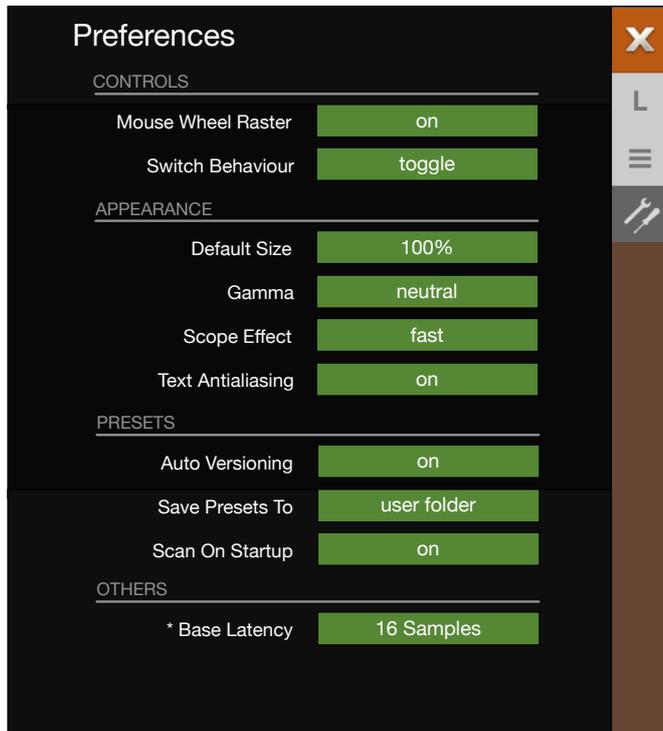
Removing assignments

Individual assignments can be removed by clicking on the small [x] to the right of each line. To remove all assignments at once, click on the [Delete All] button at the bottom of the window.

Preferences



Click on the 'tools' button to open the 'Preferences' page, where you can set several global defaults to suit your mouse and monitor:



Controls

Mouse Wheel Raster

If your mouse wheel is rastered (you can feel it clicking slightly as you roll the wheel), set this to **on** so that each click increments / decrements in sensible value steps.

Switch Behaviour

The 'drag' option lets you drag switches up/down while 'toggle' lets you click anywhere on the 2-way switches. In these modes you can also switch over by clicking directly on the position you want. The 'iterate' option steps to the next position down, but clicking directly on a position no longer works in this mode. Note: Like the knobs, switches respond to rolling the mouse wheel – no clicks required!

Appearance

Default Size

Sets the default GUI size for each new instance. You can temporarily change the GUI size without entering the Preferences – simply right-click in the background.

Gamma

Determines GUI brightness.

Scope Effect

Affects how the waveform appears: *eco*, *fast*, *glow*, *fire* or *wind* (in order of CPU usage).

Text Antialiasing

Switches the smoothing of labels and values on / off. Only in certain cases will switching it off improve readability.

Presets

Auto-Versioning

If 'on', an index is automatically appended to the name and incremented each time it is saved. Saving 'Space' 3 times in a row would give you 3 files: 'Space', 'Space 2' and 'Space 3'.

Save Presets To

Choose the 'user folder' option if you want all saved presets to land in the *User* folder instead of the currently selected one.

Scan On Startup

Determines whether the preset library should be scanned and the database recreated when the first instance of Colour Copy is started, e.g. when you reopen a project.

Others

Base Latency

If you are sure that your audio system – hardware and software – uses buffers that are a multiple of **16 samples** in size (refer to the respective documentation), you can safely disable this. Otherwise leave it set to the default '16 samples' to prevent crackles.

Note that the new Base Latency only takes effect when the host allows, e.g. on playback or after the sample rate is switched. Reloading Colour Copy will always update Base Latency.

MORE ABOUT BUFFERS

Internally, Colour Copy processes audio in chunks of $n \times 16$ samples. The 'block processing' method reduces the CPU load and memory usage of all our plug-ins.

For example. if the number of samples to be processed is 41, Colour Copy will process the first 32 and keep the remaining 9 in a buffer (16 samples is enough). Those 9 samples are then processed at the start of the next call... and so on.

The extra buffer is only necessary if the host application or audio driver processes 'unusual' audio buffer sizes. Many hosts process buffers of 64, 128, 256 or 512 samples (all multiples of 16), in which case you could try switching off Base Latency so that Colour Copy can work latency-free.

NKS

Colour Copy supports Native Instruments **NKSFx** format so that it can be integrated into the Komplete Kontrol software or Maschine environments. Colour Copy's factory presets are optionally also installed as tagged **.nksfx** files. A few pages of performance controls mapped to common parameters are automatically generated and saved together with each **.nksfx** preset.

Saving as **.nksfx** is only possible in the VST2 version

Mac owners can use – temporarily if necessary – any host application that supports VST2

Saving in NKS format

While the *native*, *h2p* and *h2p extended* options cause Colour Copy to save presets into the currently selected preset directory, **.nksfx** files go directly into the preset location used for Komplete Kontrol or Maschine, so they do not appear in Colour Copy's preset browser. To make them visible in Komplete Kontrol, open its preferences and rescan the preset locations.

Batch conversion

First, right-click the [save] button and set the target format to **nksfx**. Via cmd-click (Mac) or alt-click (Win), select all presets in the current folder you want to convert, then right-click any of the selected presets and choose convert to **nksfx**. Note: The original files are not affected.

What to do if Colour Copy doesn't show up in Komplete Kontrol / Maschine.

First of all, make sure your NKS software is up to date: Komplete Kontrol V1.5+ or Maschine V2.4 are the minimum requirements for u-he. In Windows, Komplete Kontrol must know the Vstplugins folder containing Colour Copy: Open Komplete Kontrol preferences, go to Locations and add your Vstplugins directory if necessary, hit Rescan and check whether Colour Copy appears. Maybe the NKS preset folder is empty? If so, please reinstall Colour Copy with the correct VST path and the NKS-option checked. Here are the preset folder locations:

Mac: *Macintosh HD/Library/Application Support/u-he/ColourCopy/NKS/ColourCopy/*

Win: *...\Vstplugins\ColourCopy.data\NKS\ColourCopy*

Perhaps the XML-File is missing from this location:

Mac: *Macintosh HD/Library/Application Support/Native Instruments/Service Center/u-he-ColourCopy.xml*

Win: *C:\Program Files\Common Files\Native Instruments\Service Center\u-he-ColourCopy.xml*

A re-install with the NKS-option checked should also remedy this issue.

What to do if Komplete Kontrol / Maschine is unable to load Colour Copy

Either Colour Copy wasn't installed as VST2, or it wasn't installed with the correct path. The default VST path is fixed in MacOSX, but in Windows it can be freely assigned during installation:

Mac: *Macintosh HD/Library/Audio/Plug-Ins/VST/u-he/*

Win: *<User VST Folder> / (path for the VST plug-in set during installation)*

If Colour Copy's VST plug-in cannot be found in one of these locations, run the installer again making sure that you set the correct path and have activated 'VST' as installation option.

Team 2018

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