



TRIPLE CHEESE

User Guide



Version 1.3

Heckmann Audio GmbH • Berlin

Introduction

Thanks for checking out Triple Cheese! I think it's a cool sounding plugin, even though it's free and not very capable. As the name suggests, it's perfect for cheesy sounds, but it can also create some surprisingly different flavours!

- Urs Heckmann, 2006

Online resources

For downloads, news articles and support, go to the [u-he website](#)

For lively discussions about u-he products, go to the [u-he forum](#) at KVR

For friendship and informal news updates, go to the [u-he facebook](#) page

For video tutorials and more, go to the [u-he youtube](#) channel

For our soundsets and bundles, go to [u-he soundsets](#)

For 3rd party presets, go to [Patchlib](#)

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Credits

Thanks to all the sound designers for presets & support, and special thanks to 'tuz' on [kvraudio.com](#) for motivating me to take the KVR Developer Challenge.

Browser, Configuration

The second half of this user guide deals with the [preset browser](#) and [configuration pages](#).

Synthesis

Unlike many other synthesizers that use synthesis forms like subtractive (oscillators and filters), FM (interacting oscillators), additive (piled up sine waves), Triple Cheese mainly uses various forms of comb filters (chromatically tuned delays) to create or modify sound. So, it's a bit different from most of the stuff you've already seen. No, it does not have any analogue sounding resonant lowpass filters!

The idea: You have three cheesy modules (hence Triple Cheese!) which either generate sound themselves or manipulate what the “previous” module i.e. the one to the left has already created. The first module CSO1 can only generate sound, as there is no module to its left.

Each of the three cheesy modules (**C**omb **S**ynth **O**scillators) looks like this:



The selector at the top offers 8 different modes. The upper row of knobs (Tune, Detune, Vibrato) all determine the module's tuning relative to the note played.

Each of the 4 modulatable parameters (Tone, Damp, Pan and Volume) has a small circle next to the label i.e. source selector – click and drag on these to adjust modulation amounts. In the above image, the LFO is modulating Tone as well as Pan, both negatively. No modulation sources have been selected for Damp and Volume – click on ‘none’ and select one from the dropdown menu.

While Pan and Volume may be obvious, **Tone** and **Damp** depend on which mode has been selected for the cheesy module. Here's a chart...

Modes

Mode	Description	Tone	Damp
Pluck	Creates a pluck based on noise excitation, good for plucked strings	Spectral richness of the noise excitation	Drains higher partials out of the pluck. The decay gets shorter with higher damping
SawPluck	Creates a pluck based on a sawtooth waveform	Same as above, at 0.00 it's almost a sine wave	Same as above
SquarePluck	Creates a pluck based on a square wave	Same as above	Same as above
Bowed	Creates a constant noisy sound that is somehow reminiscent to bowed strings	Makes the pitch of the noisiness appear higher or lower	If damp is low, it sounds a bit like a violin. If damp is high, it's more ensemblish
Blown	Creates a noisy sound reminiscent of flutes and reeds. Caution: This mode may sound quite out of tune	Tunes the resonance of the tube, closing in on partials. Can sound overblown	The more damp, the less noise is inside here
Noise*	Creates white noise	-	Lowpass filters the noise
DC*	Injects a DC offset. Almost only useful in combination with a subsequent Resonator module	-	-
Crackle*	Creates crackled noise	Turn up to reduce the crackle density	Lowpass filters the crackles
Resonator**	A stereo comb filter. Replaces the input signal from previous modules by its output!	Feedback of the comb filter	Lowpass filters the feedback
Damp**	A combined 12dB lowpass and highpass filter. The center frequency (Cutoff) is tuned relative to the note played	Tunes the cutoff of the lowpass filter	Tunes the cutoff of the highpass filter
Stressor**	Another stereo comb, but with a waveshaper in the feedback path and 100% feedback	Amplification before waveshaping	Lowpass filtering after waveshaper

* only in cheesy module 1

** only in cheesy modules 2 and 3

Resonator and *Damp*: the Pan parameter is a stereo balance.

Resonator and *Stressor*: Detune affects stereo channels in opposite directions.

It's surprisingly flexible. Here are a few examples:

SawPluck | SawPluck | SawPluck: You can hear three SawPlucks

Noise | Damp | Resonator: You can hear white noise through a lowpass and a highpass filter before entering a feedback comb filter.

DC | Resonator | Damp: Like a square wave bell with filters.

Modulations

For modulation there is a bunch of typical MIDI controls, 2 classical ADSR envelopes with a Fall/Rise parameter on Sustain, a keyboard Gate control (key pressed or released) a global tempo-syncable LFO and a Vibrato. The latter is basically an LFO for each voice, with delay and amplitude modulation. All this stuff should be pretty self-explanatory!

Global / VCA

Well, these are all self explanatory too, aren't they? Volume, VCA source (Gate or one of the envelopes), few/medium/many voices, Portamento time, Pitchbend...

Effects

Triple Cheese also has a really cheesy built-in effects section. The quality isn't too bad, but it really only covers a few essential effects:

Chorus1Wide chorus with pretty long center delay

Chorus2A bit narrower and better suited for percussive material

Flanger.....Chorus with short center delay, suited to flanging (turn feedback up!)

Phaser.....Classic out-of-phase phaser effect

Delay1Stereo delay synced to host tempo in quarters

Delay2Stereo delay synced to host tempo in eighth notes

Delay3Ping Pong delay based on quarters and dotted eighths

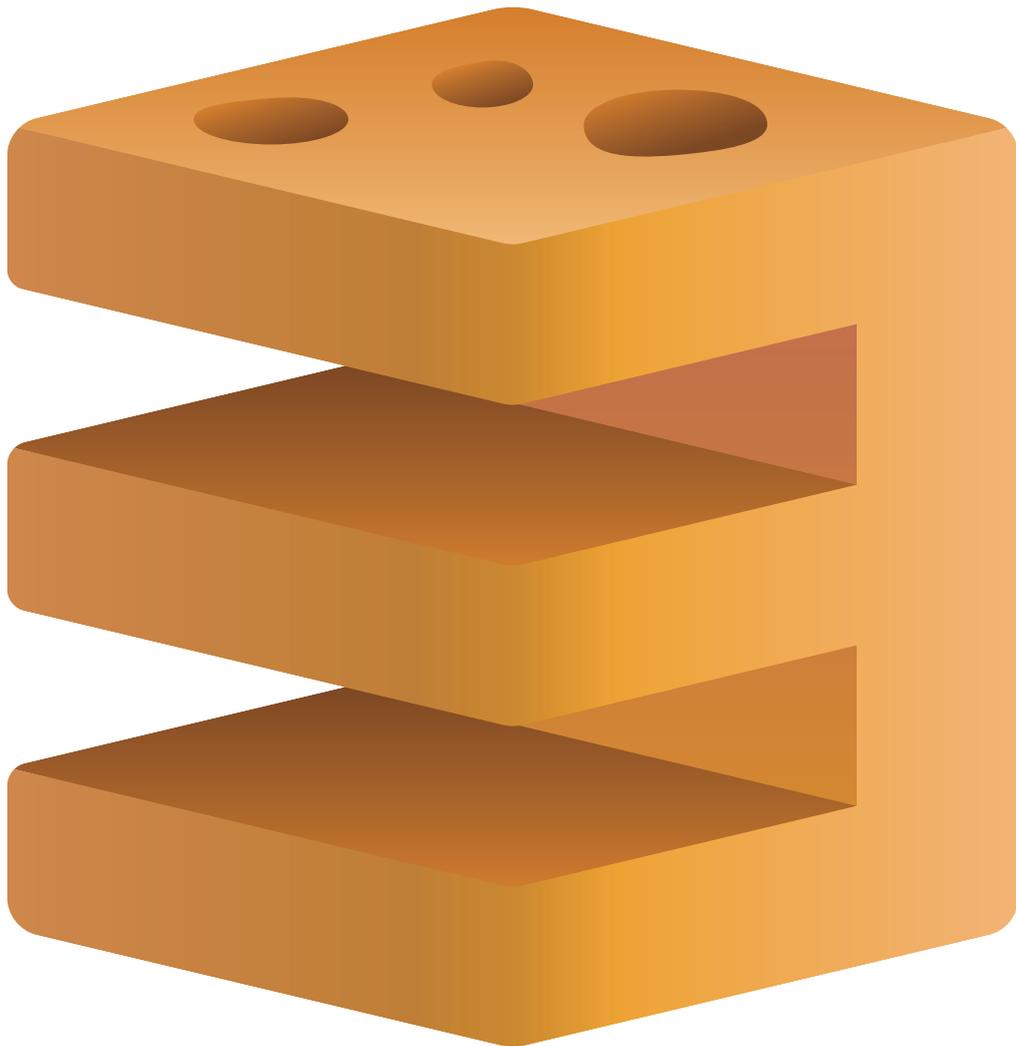
ReverbCheesy reverb based on only 4 delays

Note that you can modulate the delay times of the Delay effects which can add some nice warmth to the sound. Same for Reverb, which can sound a bit out of tune if you set too much modulation.

Presets

Triple Cheese comes with a bunch of presets by fine patch designers. You can step through those in the currently selected directory by clicking on the < and > buttons, or get the full list of presets in the current directory by clicking on the data display at the top.

Version 1.3 includes the new u-he standard browser: Click on the PRESETS button in the control bar. It's so feature-rich that it takes up most of this new user guide!



Preset Browser

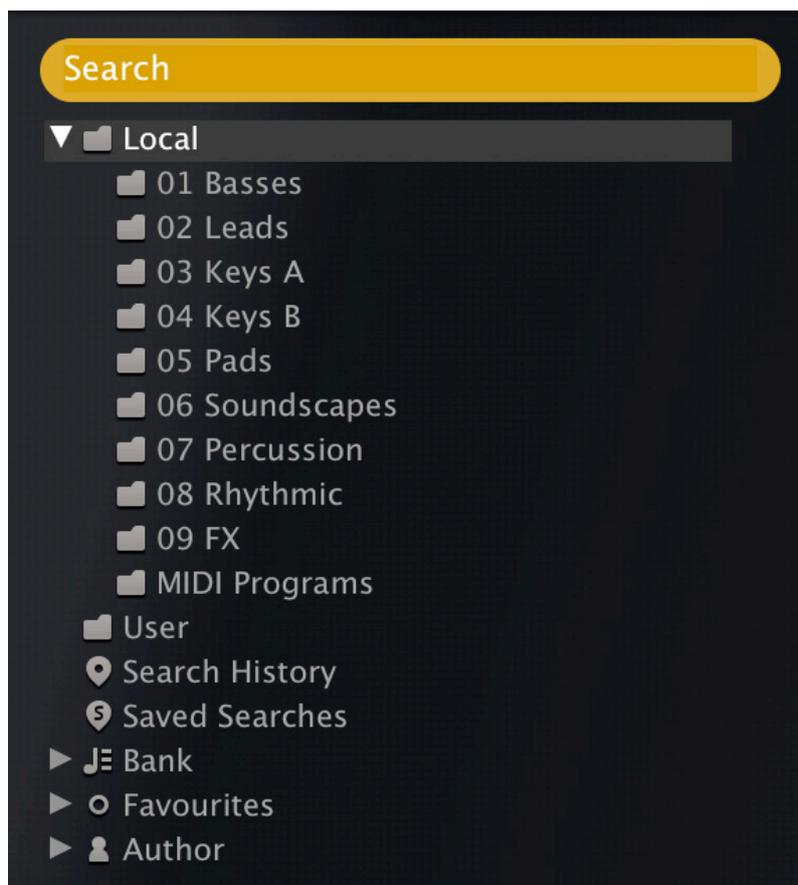
You can load presets in the current folder by clicking on the data display and selecting from the dropdown menu, then step through them by clicking on the triangles either side of the data display. However, TripleCheese also has a powerful browser – click the [PRESETS] button to the right of the data display...

Most of the GUI is replaced by 3 panels: **Folders** appear on the left, **presets** in the centre and **information** about the currently active preset on the right. If you can't see the folders 01 to 09, click on the triangle to the left of Local. If you can't see the PRESET INFO panel at all, click on the triple bar icon in the top right and activate *Show Preset Info*.

Immediately after loading a preset by clicking on its name you can step through all the others using your computer's cursor keys.

Whenever TripleCheese starts it checks whether the Local root contains a preset called *default*, which is then loaded. Note that *default* will not appear in the browser.

Directory Panel



Local

TripleCheese factory presets are sorted into 9 category folders. We recommend that you don't add to or remove any presets from Local, but save your creations in the User folder!

MIDI Programs

All presets (up to 128) present in this folder will be loaded into memory when the first instance of TripleCheese starts. MIDI Programs can then be switched via MIDI Program Change. As the MIDI Programs are accessed in alphabetical order, it's best to prefix each name with an index '000 rest-of-name' to '127 rest-of-name'.

Unlike regular presets, MIDI Programs cannot be added, removed or renamed on the fly. Changes will only take effect after the host application has been restarted.

The MIDI Programs folder can contain up to 127 sub-folders of 128 presets, switched via Bank Select (CC#0) preceding the Program Change message. The MIDI Programs folder itself is bank 0, sub-folders are addressed in alphabetical order starting with bank 1.

When TripleCheese receives a program change 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 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 will be addressed, even if hidden.

User

The best place for your own creations as well as third party soundsets. You can either select the 'User' folder immediately before saving the preset, or set a global preference which ensures that it will always be saved there – see the [preference Save Presets To](#).

Tip: To find out where the User folder resides on your computer, hold down option (Mac) or ctrl (Windows), right-click on the User folder and select *Show in Finder / Explorer*.

Smart Folders

The other folders don't contain files, but display the results of querying a database of presets. The content is dynamic i.e. it will change whenever the underlying data changes.

You can **drag & drop** any smart folder content onto e.g. 'User' or the desktop (see [External Drag & Drop](#)) to create folders containing real copies of those presets!

Search History

Click to display the results of past searches (maximum 10). If you want the search results to be more permanent, right-click and select *Save Search...* To remove all searches from the list, right-click on the 'Search History' folder and select *Clear*.

Saved Searches

This folder contains searches that have been saved via right click from the Search History. To remove individual saved searches, right-click on the search and select *Delete*.

Banks

These reference metadata about preset origin – the version of the factory library or the name of the soundset with which the preset was installed. See [Preset Info](#) a few pages down. Banks are (or will be) predefined for factory presets as well as u-he soundsets.

You can create your own custom banks: Drag & drop one or more presets onto the 'Bank' folder then enter a suitable bank name into the dialogue box. To remove Bank attributes, either drag & drop presets onto the 'no Bank' folder, or right-click on the Bank and select *Remove Presets from Bank*. Empty Banks will disappear.

Favourites

Presets dropped onto the 'Favourite 1' folder will be marked as such. The Favourite status can be removed from all presets by right-clicking on 'Favourite 1' and selecting *Remove All Favourite 1 Marks* – see [Presets context menu](#) a few pages down.

Junk

A smart folder pointing to junked presets (see 'Presets context menu' on the next page). Files dropped onto this folder will normally disappear from the browser, but you can select *Show Junk* in the Presets context menu.

Like Favourites, Junk can even be exported/imported (as *Junk.uhe-fav*).

Junk marks can be removed globally by right-clicking on the Junk folder and selecting *Remove All Junk Marks*. If hidden, all junked presets will reappear in the browser.

Author

Smart folders for each Author. Tip: Instead of signing each of your creations individually, you could sign just one, then select all the others and drag them onto 'Author/(You)'. As there is no easy way to revert to previous author names, please use this function with caution! See [Internal Drag & Drop](#) a few pages down.

Directory context menu

Right-click on any folder within 'Local' or 'User' to open this menu:



Refresh: Update the contents of the browser.

Create New...: Insert an empty subdirectory.

Rename...: Edit the folder name.

Open in Finder / Explorer: Opens a system window for the currently selected folder. If you hold down the option key (Mac) or ctrl key (Windows), this entry will change to Show in Finder / Explorer and the folder will be highlighted instead of opened.

Move to Trash / Recycle Bin: Moves the selected folder and all its contents to the trash.

On Open Expand to: The options here determine how deeply the browser will open any sub-directories whenever the GUI is opened or the *Refresh* function is called.

Show Folder Icons: Unselect to hide all icons in the directory except the Junk symbol.

Search

The field at the top of the Directory panel lets you find presets according to a text string. The search normally looks into the preset name, author name, DESCRIPTION and USAGE (see the PRESET INFO panel). The search is not case-sensitive. Quotes are not required unless you need to include spaces. After entering some text, hit [Return].

To restrict the search to a particular search path, double-click that folder. This path will appear beneath the Search field instead of the preset folders, and you will only see smart folders. If the specified path contains sub-folders, these will also appear.

The [^] button to the left moves the search path up one level. The [X] button to the right sets the search path to the default Local plus User (i.e. all TripleCheese presets), and the preset folders become visible again. Alternatively, you can navigate to any higher level by right-clicking the search path, which opens a little menu.

Try this: Enter three or four letters then hit Return. For instance, star will find all files containing the text string star (e.g. mustard or starters). Entering "star wars" (with the quotes) would find e.g. Battlestar Warship, if such existed in the presets.

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 names contain 'the'. Similarly, *desc:space* will find all presets with the word *space* in the description.

Logic

AND requires that presets contain both words. AND is implicit, but can be written explicitly: For example, entering 'star AND wars' is the same as entering 'star wars'.

OR means that presets must contain at least one of the words.

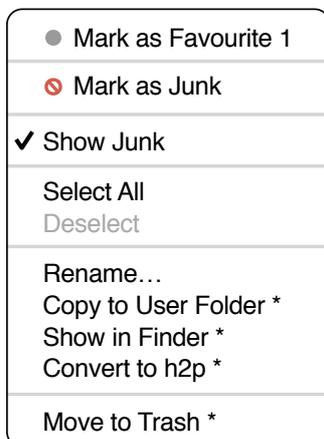
NOT excludes the following word e.g. star NOT wars would find 'star' but not 'star wars'.

Presets Panel

The central, unlabelled area of the browser displays all presets in the current folder.

Presets context menu

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



Mark as Favourite: Make the selected preset(s) ‘Favourite’. The entry will be replaced with *Unmark as Favourite*. Note: The index ‘1’ is for compatibility with our other plugins, which offer 8 colour-coded Favourite options.

Mark as Junk / Show Junk: Instead of deleting presets, you can mark them as ‘junk’ so that they disappear from the browser. Activate *Show Junk* to display junked files and mark them with a STOP symbol.

Select All, Deselect: See ‘Multiple Selection’ on the next page.

Rename...: Use this function to change the name of a preset.

Copy to User Folder / Duplicate: This entry depends on the status of the *Save Presets To* preference as well as on the location of the source preset(s) i.e. whether they are in the Local or the User folder. Selected presets are copied with a number appended to the name, which increments (just like the Auto Versioning option) so that no preset can be overwritten by mistake.

Show in Finder / Explorer: Opens a system window for the right-clicked file. In smart folders only, holding down an option key (Mac) or ctrl key (Windows) replaces this entry with *Show in Browser*, which shows the currently selected file in its original location within the Triple Cheese browser.

Convert to h2p: Resave selected presets, including a new timestamp. Note: The odd name is for compatibility reasons – our other plugins offer several options here.

Move to Trash / Recycle Bin: Moves the selected preset(s) to the system trash.

Restore

While in the browser you can audition presets without losing track of the one that was previously loaded: Click the [RESTORE] button to get back to where you were before entering the browser.

Multiple selection

A block of adjacent presets can be selected via shift+click, and individual presets can be added to the selection via cmd+click (Mac) / alt+click (Windows). Presets can be moved to a different folder via drag & drop (see below). To deselect, either click on an unselected preset or choose Deselect from the context menu.

Internal Drag & Drop

You can drag and drop single or multiple files from the preset panel onto any folders in the directory panel. Files dragged onto regular folders will be moved unless you hold an option (Mac) or ctrl (Windows) key, in which case they will be copied instead. Files dropped onto smart folders will adopt the attribute of that folder: For instance, you can set the Author for several presets at once.

External Drag & Drop

To manage your preset library externally you can drag presets and folders between the TripleCheese browser and your desktop or any system window.

On the Mac most Finder operations will automatically update the browser. Updating might not be immediate when using multiple formats or multiple host applications, but all it usually takes is a click on the GUI or in the directory tree (sets focus to the clicked instance of TripleCheese).

On Windows systems, a manual *Refresh* (see Directory context menu) will be required before changes to the contents of the browser appear.

Another little helper: If you drag a TripleCheese preset from e.g. your desktop and drop it onto the Data Display, it will be loaded but not automatically saved.

Exporting smart folders

Drag any smart folder onto the desktop to create a new folder containing those presets. E.g. Drag from Search History, Favourite 1 or one of the Authors.

Exporting favourite / junk status

You can export Favourites or Junk status: Shift+click and drag the 'Favourites' folder onto the desktop to create a file called *Favourites.uhe-fav*. Such files can then be imported into TripleCheese on a different computer, via drag & drop onto the Favourites folder.

Note that importing *.uhe-fav* files from another computer will only work 100% correctly if all preset names and locations are identical on both computers.

Preset Info

The panel to the right displays information about the selected preset. If you can't see this panel, click on the 'triple bar' [≡] button in the top right corner and tick *Show Preset Info*. If you prefer to see more presets and less information, hide the PRESET INFO panel.

Below the preset name you should see its path (from /Local or /User), the Bank and the Author (which also appear as Smart Folders). The DESCRIPTION and USAGE text is entered immediately before saving a patch.

Installing Soundsets

Any soundsets we distribute ourselves will be available in *.uhe-soundset* format. Third parties are also encouraged to use this package format for their own commercial soundsets (for details please contact our support team).

Standard Method

To install, drag & drop the *.uhe-soundset* file into TripleCheese – anywhere will work. The soundset should appear in the 'User' folder. If a soundset with the same name already exists there, modified files will be backed up and the location displayed.

Alternative Method

Soundsets in *.uhe-soundset* format can also be installed by clicking on the u-he badge, selecting *Install Soundset...* and navigating to the *.uhe-soundset* file. This option is especially for Linux, as the browser for that platform does not support drag & drop.

Regular Folders

Folders containing TripleCheese presets can be manually copied or moved into the 'User' folder. You might have to refresh the browser (see [Directory context menu](#)) before they appear there. A refresh is generally necessary in Windows but not in macOS.

Note: As *.uhe-soundset* files are basically ZIP-compressed folders, you can rename them i.e. replace the long file extension with 'zip', then extract the presets as well as the accompanying documentation.

Configuration



Click on the cogwheel icon at the top right to open the global configuration pages where you can adjust the UI size and brightness as well as connect TripleCheese parameters to MIDI controllers (CC).

A column of buttons will appear: Close [X], MIDI Learn [L], MIDI Table [≡] and Preferences [tools]. Right-click within the column of buttons to set the **current page** as default.

MIDI Control

MIDI Learn



TripleCheese can be remote-controlled via MIDI messages from a hardware controller unit and/or from the host application. Click on the cogwheel and select the 'L' MIDI icon...



The MIDI Learn overlay shows all MIDI-learnable elements as selectable blue outlines. Controls that are already assigned appear filled (like the CSO1 Tune and Vibrato controls here), and the currently active control is highlighted (like ENV1 Attack here).

Try it: Click on the CSO1 Tune knob and send TripleCheese some MIDI CC data (move a knob or slider on your MIDI controller) — the connection is made instantly, and applies to all instances of TripleCheese.

About MIDI CC

CC stands for control change (or continuous controller), a multi-purpose message format used for editing and performing presets. Please avoid using controllers 120 to 127 as these are reserved for channel mode messages. <https://www.midi.org/specifications>.

MIDI Table



Click on the configuration button and select the triple bar icon to open an editable list of all current MIDI CC assignments:

Parameter	MIDI Channel	Controller	Mode	Type
1 CombSynOsc1:Tune	1	2	normal	Continuous7bit
2 CombSynOsc1:Vibrato	1	11	normal	Continuous7bit
3 -not assigned-	1	1	normal	Continuous7bit

Per Instance Control

CC 2 Breath
Control A

CC 11 Expression
Control B

These "per instance" settings override the global Control A/B preferences

Parameter

The first field displays/selects one of TripleCheese's many parameters. Click on the 'Add' button at the bottom and experiment with this option. Delete any unwanted assignments by clicking on the small [X] to the right of each line.

Channel / Controller

The next two fields are for MIDI channel and CC number.

Mode

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

octaves.....discrete octave steps (mainly useful for Tune control)

semitones.....smooth control over a 1 octave range (mainly for Tune control)

Type

Specifies the type of hardware. By far the most common is *Continuous 7-bit*.

Encoder 127unipolar encoder, sends -1 or +1 when moved

Encoder 64.....bipolar encoder, sends 63 or 65 when moved

Continuous 7-bit.....7-bit MIDI CC (normal resolution, common)

Continuous 14-bit.....14-bit MIDI CC (high resolution, rare)

Removing Assignments

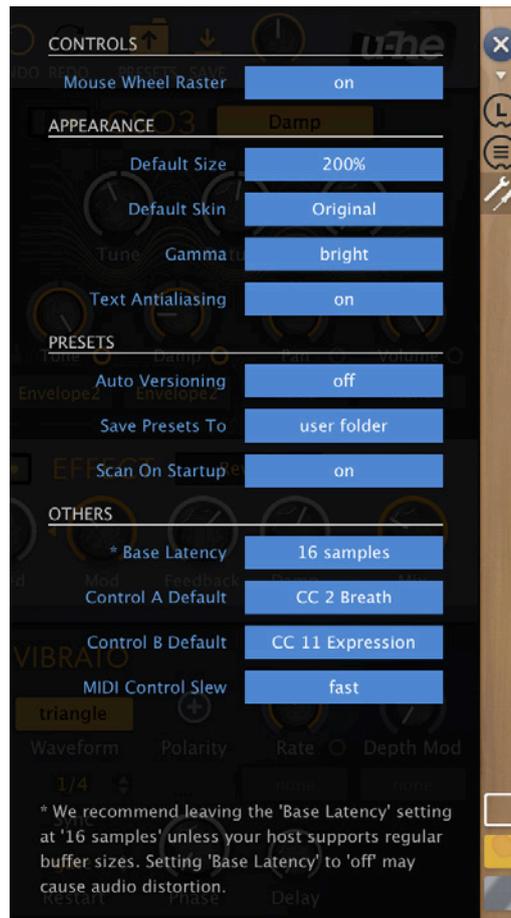
To remove assignments again, click on the [x] to the right of each line. To remove all assignments, click on the [Delete All] button at the bottom of the MIDI Table window.

Per Instance Control

Local versions of the Control A / B Default settings in the Preferences page. See there.

Preferences

Click on the cogwheel then the 'tools' icon to open the Preferences window:



Mouse Wheel Raster

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

Default Size

The GUI size for each new instance. Note that you can temporarily change the GUI size without having to enter the Preferences page – just right-click in the background.

Gamma

Controls overall brightness.

Text Antialiasing

Smoothing of labels and values. In rare cases, switching this off can improve readability.

Auto-Versioning

If this option is switched on, a numeric index is appended to the preset name and automatically incremented each time you save under the same name.

Save Presets To

Choosing the user folder option causes all saved presets to land in the User folder instead of the currently selected one.

Scan On Startup

Whether the preset library should be scanned and the database recreated when the first instance of TripleCheese is started, e.g. when you reopen a project.

Base Latency

If you are certain that your audio system – hardware as well as software – uses buffers that are a multiple of 16 samples in size (please refer to the respective documentation), you can safely disable TripleCheese's base latency here. Otherwise leave it at '16 samples' to prevent crackles.

Note that a new Base Latency setting will only take effect when the host allows e.g. on playback or after switching the sample rate. Reloading TripleCheese will always work.

Internally, TripleCheese processes audio in chunks of $n \times 16$ samples. This so-called 'block processing' significantly reduces the CPU load and memory usage of our plug-ins.

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

The extra buffer is only necessary if either the host or the the audio driver processes 'unusual' buffer sizes. In the many host applications that process buffers of 64, 128, 256 or 512 samples (all multiples of 16), try switching it off so that TripleCheese can process latency-free.

Control A/B Default

The list of modulation sources in the previous TripleCheese version included two more fixed MIDI controls: Breath (CC#02) and Xpress (CC#11). While retaining backwards compatibility, we replaced these with user-definable Control A and Control B sources.

MIDI Control Slew

This option lets you change the strength of performance control smoothing applied to pitch bend, modulation wheel, Control A, Control B and Pressure. The default is 'fast'.