

KIRNU - CREAM MANUAL



Installation/Uninstallation

- Run the installer and specify the installation location if needed (Windows)
- In Mac VSTs are installed in /Library/Audio/Plugins/VST folder. AU plugins are installed in /Library/Audio/Plugins/Components folder.
Presets and data are installed in /Library/Application Support/Kirnu folder.
- In Windows VST plugins are installed to user specified location.
- Presets and data are installed in CommonAppDataFolder folder which is different in every Windows version:

* WinXP: "c:\Documents and Settings\All Users\Application Data"

* WinV/7/8: "c:\ProgramData"

- If your DAW isn't able to find the plugin please check if you have defined the correct plugin path

AU plugin

- AU plugin is intended to be used only with DAWs which don't support VST plugins. For example Apple Logic.
- AU plugin uses Virtual Output to send MIDI to the host so there might be some latency involved when using AU plugin. It is also important to note that AU plugin is not in perfect sync with the host application because of the latency.
- When AU plugin is inserted to some track in the host DAW a virtual MIDI input is generated for each Cream instance. This MIDI input is named as "From Cream x" where x is the instance number starting from 0.
- Please use VST plugin whenever it is possible.

Host issues

- MuLab: Problems in playback. Developer is contacted and he is fixing problems which causes Cream to play out of sync
- Studio One: Problems in playback. This is because ST1 doesn't support syncing MIDI with MIDI plugins. This issue will be fixed in ST1 upcoming releases.

Registration

When you have received your registration key you can register the product by clicking the Cream logo and typing the registration info to pop up registration dialog.

Basic Usage

Cream needs a VST/AU host application to run. There are several hosts aka DAWs to choose from: Reaper, Ableton Live, Cubase, Cakewalk Sonar...

- In order to your host to find Cream you have to set the plugin path to point the Cream install location.
- Cream needs MIDI notes in order to operate. Therefore you have to put Cream in a MIDI track and feed some lovely MIDI notes to it.
- Cream itself doesn't produce any sound so it's mandatory to route Cream generated MIDI notes to some instrument in order to hear any sound.
- Every host has their own ways to route MIDI plugins and there will be Cream usage videos created for all major hosts.

Top elements

MIDI

MIDI controls are Track specific controls so each Track could have their own MIDI in/outputs

Input: Specifies MIDI channel Track listens MIDI messages.

Output: Specifies MIDI channel Track sends generated MIDI notes to

Statusbar

Displays current value of edited control. Control value can be shown here just by clicking it with mouse

Loading/Saving presets

This can be done by clicking the preset name control and selecting appropriate action.

Presets can be also be loaded using arrow controls.

Panic button

With this button you can send setop all notes message to DAW so all notes will stop playing. This is very

useful when you find some note is playing when it shouldn't be

Global section



All Tracks share the same global control so for example if you change the Scale all Track's will have the same scale.

- **Volume:** adjusts all the generated notes volume from all key areas
- **Scale:** Specifies global scale for all Key areas.
If some scale is selected all notes are snapped to that scale. Even transpose control follows the scale and every note output belong to that scale

Ones represent notes that are in scale

All notes 1,1,1,1,1,1,1,1,1,1,1 (C,C#,D..)

C-Major 1,0,1,0,1,1,0,1,0,1,0,1 (C,D,E,F,G,A,B)

C-Major mode 1 = 0,1,0,1,1,0,1,0,1,0,1,1 (C#,D#,E,,)

C-Major mode 2 = 1,0,1,1,0,1,0,1,0,1,1,0 (C,D,D#..) this would be like C Dorian

So new scale is produced by shifting the selected scale by selected amount of semitones.

- **Control zone sync:** Specifies how control zone commands should be applied when they are triggered. Values are steps.
Values indicate how often pattern change is triggered. Value 4 means triggering is happening every 4 steps.
If value is for example 4 and current step is 5 pattern will be changed in step 9
- **Note release:** if this control is enabled Cream will not restart pattern immediately when all notes are released from note list. Instead Cream will wait to until next step starts (note release

is delayed) and if no notes have been played before this it will reset the pattern.
This feature is helpful in live situations where player needs to change chords while playing. The pattern would not reset every time player changes the chord.

Track section



- **Track on/off:** With this control user can turn Tracks on or off. If Track is off the key zone will still be active but notes received will not be processed but send directly to MIDI channel specified by MIDI out control. (See global setting 'Transpose all output notes'). By pressing ctrl-key while clicking mouse left button Tracks are exclusively enabled or muted.
- **Track selection control (1,2,3,4):** Selects key areas for editing. When right clicking the control user can select to copy or paste all the Key area controls or toggle 'Send only CC' setting and 'Trigger CM'.

Send only CC

When 'Send only CC' is enabled the selected track only sends CC messages. No note ON/OFF messages are being sent.

Trigger CM (trigger Chord Memory)

When 'Trigger CM' is enabled chords can be played by using keyboard keys. The first CM slot can be played using the first key from Track Key Area. Second note triggers the second CM slot etc.. If this feature is enabled but there is no keys enabled in corresponding CM slot no notes are played.

- **Key area control:** Range which this track listens to incoming MIDI notes. Track key areas can overlap. This means same note might be played at the same time. Cream stops the currently played note and starts to play the new note in this situation. If you want to prevent this overlapping note behaviour please use different MIDI out channels in all Key areas.
- **Base note** indicates the base note of the output note. For example if key area is C1 - C2 and base note in C2. Note C1 is played but note C2 is output. Base note specifies how the output note is transposed in relation to the key area start note.
- **Velocity mode:** Specifies output note velocity/volume
 - Max:* Velocity is 127 i.e maximum value
 - Note:* Velocity is the actual input note velocity
 - First:* Velocity is taken from the first note in the note list
 - Last:* Velocity is taken from the last note in the note list
 - Average:* Velocity is the average of all notes in the note list
- **Volume:** adjusts all the generated notes volume from selected Track
- **Arpeggio on note count:** Specifies how many notes must be input before Cream will start processing the notes. This enables playing melodies without Cream processing the notes.

- **Hold**
Hold mode is very powerful feature. It makes it easy to play songs in live situation because only thing you must do is press chords once and not keep pressing them all the time.
- **Sync:** This control specifies when new input chord is actually played. these values are in steps. If value is for example 3 the chord will actually be triggered after 3 steps it was played.
- **Transpose:** When this control is enabled the current chord is transposed by notes played. For example if chord played ie C3 E3 G3 and transpose enabled and then note G3 is played the output chord would be G3 B3 D3 (G Major)
- **Bypass:** When this mode is enabled all incoming notes are sent directly without processing them. Currently played note in hold mode keeps playing.

Pattern controls



These controls can be 'locked' using the lock control. This means control value is not changed when new preset is loaded.

- **Gate:** Specifies how much note is shortened/lengthened. The maximum value is (when control is at 100) 50% of rate value. The minimum value is -50% of the rate value.
- **Swing:** Specifies how much every second note is delayed. The maximum value (when control is at 100) 50% of the rate value
- **Octaves:** Specifies how many octaves is generated from all the input notes.
- **Transpose:** Transposes all output notes by amount control specifies. If Scale is used all notes are transposed to the selected scale. See Global Settings section how to override this behaviour.
- **Rate:** Specifies the length of the note/step played. If free more is selected values are specified in hz. for example 1hz means that in one second only one note is played. When value is 20hz 20 notes will be played in every second. Huh! Lots of notes :)

Pattern view

Dragging the mouse within a bar changes bar value in little steps

Double clicking step bar value is set to default value.

Right mouse click pops up the reset menu which can be used to reset all the step bars to default value in current control view.

First row from bottom can be used to turn selected data section steps on or off. When step is off the value in step is ignored.

Note!

ORDER control step on/off control can be used to mute note completely. This means note is not played when step in ORDER tab is disabled.

- Pattern selection: This control is used to select Track patterns for editing and for playing. Only the selected pattern is played from each Track.
When Pattern Sequencer is enabled patterns are automatically changed.

Tools section

- Draw tool: With this tool user can 'draw' step values
- Select tool: With this tool user can select area from step section. This section can then be copied or copied values can be pasted into it.
- Random tool: With this tool user can set random values to selected steps
- Copy tool: Copy selected steps
- Paste tool: Paste copied steps to selected area. Only same control steps can be copied/pasted
- Clear tool: Clear selected area i.e set values to default

MIDI Learn



Every knob has ability to be controlled by MIDI CC messages.

MIDI Learn can be toggled on/off by clicking mouse right button above a button.

Pattern data



- **ORDER:**
 - Off - Arp plays nothing and note list is not advanced.
 - Prev - Arp plays same note it played in previous step
 - 1st - Arp plays the first note from the note list
 - Last - .Arp plays the last note in the note list
 - Hi - Arp plays the highest note in the note list
 - Low - Arp plays the lowest note in the note list
 - Rnd - Arp plays the random note from the note list
- **CHRDMEM:** Specifies the chord memory slot for this step
- **LENGTH:** With length you can multiply the the note length of the step. Value is relative to the current rate. For example if rate is 1/16 and length is 2 the actual note length is 1/8
- **GATE:** With gate you can specify the the note length of the step. Value is relative to the current rate and note length. For example if rate is 1/16 and length is 2 and gate is 50 the actual note length is 3/16. This value overrides the pattern Gate value.
- **ACCENT:** With accent user can emphasize certain notes. Accent affects on note velocity. If note's accent is raised it's velocity is also rised and other note's velocity is lowered when needed. Remember that not all VST instruments obey MIDI velocity so it's advised to learn how to increase the velocity sensitivity for particular VST if accent values make no differences in played notes
- **TRANSP:** Specifies the amount of semitones every note is transposed. If scale is not defined transpose is done by semitones otherwise note transposition is done to correct scale degree. For example Played notes are C3 E3 G3 - transpose value 1:
no scale C#3 F3 G#3
C-major scale D3 F3 A3
- **DIV:** The note is divided into smaller parts defined by div value. For example if rate is 1/16 and LENGTH value is 1 and DIV is set to 2 there are two notes played in this step each 1/32 note in length
- **SHIFT:** Note is shifted left (negative values) or right (positive values) by amount specified by shift value.
- **SEQ:** Each column represents played notes. Lowest note is at the bottom. For example if 3-note chord is played in step and only bottom slot is selected only the lowest note from the notelist will be played.

Pattern control specific controls



The blue line below the looper control area represents pattern length

The notes displayed in Pattern control data area represents current pattern position.

The small blue line on top of the control area represents currently selected control position

- **Loop control:** Every step control have their own loop control. This enables playing different controls independently from other controls.

Loop points follow mouse click. If mouse is between pointers left mouse button moves left pointer and right mouse button right pointer. Otherwise the pointer closest to the mouse is moved.

If ctrl-key is pressed while changing the loop point every step control loop point in selected Pattern is changed.



- **Loop direction:** Specifies direction in which pattern control steps are advanced.
 - Up: From note list start to end = from left to right
 - Down: From note list end to start = from right to left
 - Up alt: From notelist start to end and back
 - Down alt: From note list end to start and back
- **CC controls:** With these controls it's possible to control other VST's controls by sending special CC messages

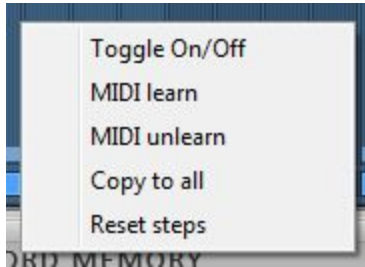
Using CC section

- - Select MIDI learn (or similar) from 'slave' VST. By doing this 'slave' VST begins to listen to CC messages.
 - - Select Teach CC control value from selection list and enable TEACH CC control. You can verify that 'slave' VST has learned the MIDI message when control value slowly moves from value 0 to max value.
 - - Disable TEACH CC control so it won't send any more teach messages to 'slave' VST
 - - Repeat this procedure for all desired CC controls.
 - - Now CC values can be draw to CC control and 'slave' VST control will move according to them
- **Reset on pattern reset:** Reset pattern control when pattern resets. Otherwise continue looping normally.

NOTE! The default note list reset mode is continuous i.e doesn't reset. If one wants note list to reset

when pattern resets he must enable Reset on pattern reset on ORDER tab!

Steps can be copied by selecting step with mouse left key and pressing control (Ctrl) key and then dragging mouse to left or right. Step is copied in every step mouse is dragged to.



By clicking mouse right button in pattern step area dialog above is displayed.

Toggle On/Off: toggles selected pattern control on/off. When control is off all it's values are ignored

- MIDI learn: Step can be controlled by MIDI CC messages when this value is selected.
- MIDI unlearn: Disables MIDI learn for this step
- Copy to all: Copy selected step value to all other steps
- Reset steps: Reset all control steps to their default values.

When mouse cursor is over the pattern control area special marks are shown.

ORDER	CHRD MEM	LENGTH	GATE	ACCENT	TRANSP	DIV	SHIFT	SEQ												
1	1	1	1	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

The control tab left upper corner has mark which can be red or green. When mark is green the data control is on. When mark is red the data control is off and all it's values are ignored.

The control tab right upper corner has white mark which indicates that that control has input values.

Steps have value number on top of them. Numbers represents step's current value.

Pattern specific controls



- **Steps:** Defines pattern length. The blue line below looper control also represents this control value
- **Play order:** Specifies how notes in nelist are ordered
 - *Hi-Lo:* Notes are sorted from highest note to lowest note
 - *Lo-Hi:* Notes are sorted from lowest note to highest note
 - *As Played:* Notes are sorted in order they are played
 - *Reversed:* Notes are sorted in reversed order they are played
- **Reset on new note:** Pattern is reset and started from beginning every time new note is played

Chord memory



With this section user can specify 16 different chords to be used in CHRDMEM data section. One chord can contain 8 notes maximum.

Chords contain only information about the intervals between notes. This is important thing to remember.

If chord memory slot has Major triad chord the actually played chord is determined by the input note. If input note is C3 then the chord would be C3 E3 G3.

- With preset control you can load and save chord memory banks. Each bank contains one chord for all chord slots.
- With fill chord control you can automatically set pre defined chords.
- Inv makes inversion out of the chord.
- Base note control specifies the chord's base note. Base note is the note where chord is placed in relation to the played note.

The neutral position for basenote is at note 13 (first note of the second octave)

For example:

1. Chord memory: notes 0 4 7 (C E G), Base note 0
Played note C1 -> Chord=C1 E1 G1

2. Chord memory: notes 0 4 7 (C E G), Base note 4
Played note C2 -> Chord=G#1 C2 D#2

3. Chord memory: notes 2 4 7 (D E G), Base note 0
Played note C1 -> Chord=D1 E1 G1

You can think the chord as a stamp where the base note is the handle. Wherever you put the handle (that is play one note) your chord is copied there.

Moving chords

If one wants to move chords left and right this is done by moving the base note instead of the chord itself. this is because we are dealing with only the intervals and when moving chords interval stays the same chord notes only rises and lowers.

For example user have simple Major triad chord and he wants it to begin one note higher than the note which triggers it.



He only moves the base note one half step to left.

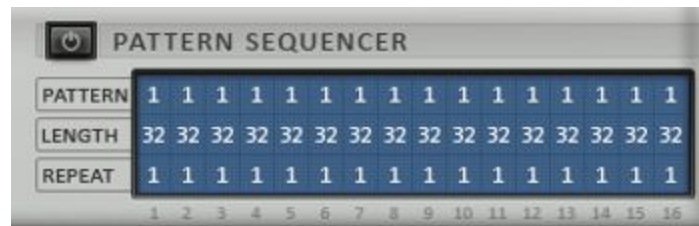


In the first case if input note would be C3 the generated chord would be C3 E3 G3.

In the latter case the chord would be C#3 F G#

Using 'Trigger CM' feature enables playing chord memory chords with keyboard keys. [See 'Trigger CM' section for more information.](#)

Pattern sequencer



- This enables user to change Track patterns automatically.

- Pattern: Pattern number to be changed
- Length: length in rate steps which this sequencer step will last
- Repeat: How many times this step is repeated

Control zone

Range C0-A#0

C0 - Toggle current pattern ORDER data on/off

C#0 - Toggle current pattern CHRDMEM data on/off

D0 - Toggle current pattern LENGTH data on/off

D#0 - Toggle current pattern GATE data on/off

E0 - Toggle current pattern ACCENT data on/off

F0 - Toggle current pattern TRANSP data on/off

F#0 - Toggle current pattern DIV data on/off

G0 - Toggle current pattern SHIFT data on/off

G#0 - Toggle current pattern SEQ data on/off

A0 - Toggle current pattern HOLD on/off

A#0 - Toggle current pattern HOLD BYPASS on/off

B0 - Panic! -> Reset Cream

Range C1-B1

You can change Track patterns with MIDI-keys. Only patterns from the currently selected Track will be changed

Patterns can be changed also with program change messages. message 0-11 changes Track 1 patterns, message 12-23 changes Track 2 patterns etc.

Control Zone can be disabled using global setting 'Disable Control Zone'

Customizing Control Zone

The customization of Control Zone is done by modifying the controlzone.crm file.

This file is located in following places:

Mac: /Library/Audio/Presets/Kirnu/Cream/data/

Windows: \installation_location\data\

Values in Control Zone configuration file are separated with new line characted.

Valid values for data in Control Zone configuration file are:

order
chordmemory
length
gate
accent
transpose
div
shift
seq
previouspreset
nextpreset
hold
holdbypass
panic
n/a
pattern1
pattern2
pattern3
pattern4
pattern5
pattern6
pattern7
pattern8
pattern9
pattern10
pattern11
pattern12

order,chordmemory,length,gate,accent,transpose,div,shift,seq: Toggles data sections on/off
previouspreset,nextpreset: Changes current preset
hold: Toggles Hold on/off
holdbypass: Toggles hold bypass control on/off.
panic: Sends panic message to Cream
n/a: Do nothing
pattern1-pattern12: Changes selected track pattern to 1-12

Copy Paste

- There are many places where data can be copied and then pasted to another place
 - Track: Mouse right click on Track number and select copy/paste. Entire Track with all controls in copied to another Track
 - Pattern: Mouse right click on Pattern number and select copy/paste. Entire Pattern with all pattern data is copied to another Pattern.
 - Pattern step data can be copied using copy/paste tool. If selection tool is used to select area only steps inside this area are copied/pasted.

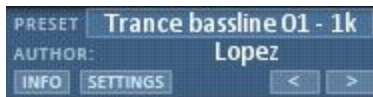
MIDI learn

All the knobs have MIDI learning ability which can be used for manipulating values in realtime. Step rate and step rate type also have MIDI learn functionality.

How to use:

- Right click on the knob.
- Select MIDI learn from popup menu.
- Move some control from your MIDI device or from DAW
- To unlearn the control select MIDI unlearn from the popup menu

Preset section



Preset: Shows loaded preset name. Presets can be loaded/saved by clicking the preset name area and selecting appropriate method.

Also current preset initialization is possible with Init selection.

When presets are saved they appear in the User-section.

Factory presets can be found from the Factory-section.

Author: Shows loaded preset author

Info: Toggles preset info popup

Information about factory presets:

Most factory presets are labeled “1k” or “3k” in their names. It means that the preset is intended to use with a “3 key chord”. If the preset is labeled “1-8k” it means you can input a chord with up to 8 keys. Please read the description of each preset carefully to know how to use them properly!

Global Settings:

- Enable MIDI note names: By enabling this feature Control Zone key names can be seen in DAWs MIDI editor if it is supported. Cockos Reaper is one DAW which has this cool feature.
- Start notes immediately: With this setting you can decide if the first note played will trigger Cream immediately or at the next note specified by the rate control.
- Use only ORDER on/off: If false all pattern step controls will have their own on/off buttons.

This means if for example SEQ step 1 is off it's value will be ignored.

If value is true only ORDER section on/off buttons will be shown in all control section. This helps building presets where user only wants to mute/unmute certain notes with on/off buttons.

- Transpose as semitones: By default Cream transposes notes to the selected scale if one is specified. With this setting you can specify that notes are transposed as semitones
- Transpose all output notes: With this setting all notes Cream output are transposed within the selected scale.
- Disable Control Zone: When enabled Control Zone no longer send control messages and all keyboard keys can be used for playing notes.
- Gate length in steps: When enabled GATE tab data can be used to specify gate length in steps. When GATE data values are greater than zero you can specify length in steps. Minimum value is 1 and maximum value is 32.

Helper keys

'1'-'4' - Change Current Track pattern selection

'5' - Draw mode

'6' - Select mode

'7' - Randomize step data

'8' - Clear step data

'9' - Copy step data

'0' - Paste step data

qwertyuio or qwertzuiio or azertyuio- Pattern data control selection. For example 'w' selects CHRDMEM

- press ctrl while dragging step data value copies step data value to adjacent steps.

- mouse right button on pattern and key area buttons reveals copy paste menu

- mouse right button on step data view reveals copy to all/reset steps menu

- mouse right button on any knob control reveals midi learn menu

- press ctrl while changing control value (dragging) and the value can be set more precisely

How to use chord memory

- Go to PATTERNS->CHORDMEM: step data values contain values 1-16 (there's a bug now only shows values between 1-15)

- Outputted Chord is constructed taking the lowest note from the input.

For example if base note is note 13. on Chord Memory keyboard and notes 1,5,8 are enabled.

User plays chord C3 D3 using his external keyboard.

In PATTERNS->CHORDMEM section all slots are set to value 1

The actual outputted note is taken from chord C2 E2 G2.

Try to place the lowest note to where base note indicator is (in your mind) to better understand how chords are constructed.