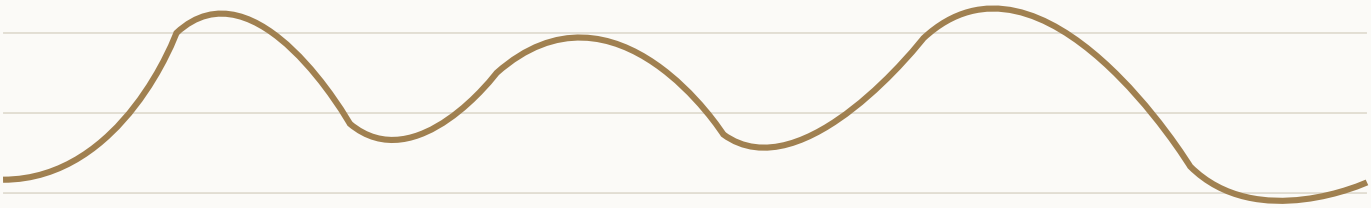
CCurve

User guide

A practical path from notes to expression



1.7.7 Release | Mac AU / VST3 | Windows VST3

Start with the essential controls.
Shape the phrase without losing the life inside each note.

Installation and first use · main controls · phrase and note editing · ensemble · MIDI handoff · shortcuts · troubleshooting · instrument families · evaluation limits

Use the PDF bookmarks to jump directly to a section.

The Korean and English editions use the same sequence and examples. MIDI examples in this book are created for the guide.

Your first useful pass

CCurve analyses notes and generates dynamics controllers. Your instrument makes the sound. CCurve works in the MIDI path, rather than on an audio bus.

Step	Action
1	Reopen your DAW after installation. In Logic, insert the AU before the instrument in MIDI FX. In other hosts, start with the VST3 instrument.
2	Choose FAMILY and the instrument name, then match OUTPUT CC to the library mapping. If your Chris Hein X-Fade is assigned to CC1, select CC1 here.
3	While stopped, arm Capture. Ready to capture means waiting for DAW playback. A pulsing light marks recording; stop playback to generate expression.
4	Set Intensity and the CC limits. Drag up/down anywhere on a knob, including its value. Double-click the value to type. Expression updates automatically.

Three knobs cover most decisions

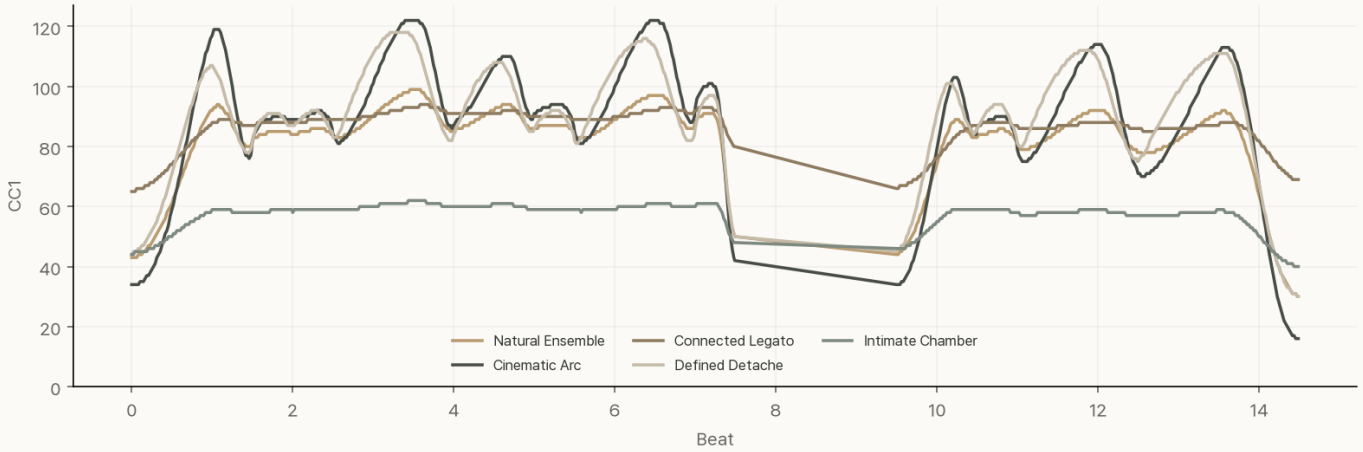
Control	Lower / higher
PHRASE FLOW	Gradual dynamic build through an automatic phrase. Higher builds more; lower stays steadier. Default 100. Does not control note attack or smoothness.
EXPRESSION DEPTH	Restrained / wider movement. Lower this first if the result feels exaggerated. Default 35.
BOW DETAIL	Calmer / clearer individual note gestures. Zero removes the note-detail layer. Default 65.

Find your way around



Area	Purpose
Header	PRESETS chooses a playing character. SETTINGS contains written-CC policy, drag origin and size. The ? menu opens either PDF edition.
Instrument and source	Choose the family, instrument, output CC and timing above the piano roll. The source row below contains the part, character, position offset and file name.
Piano roll	Notes are above the CC curve. Use TIME and NOTES +/- to zoom; FIT restores the whole view.
Footer	The lower deck holds three rotary controls, an Intensity fader and a two-handle CC range with numeric editors. Language, Settings and Help are in the footer.

Five distinct starting points



Preset	Gesture	Start with it for
Natural Ensemble	Balanced motion and note gestures	A general string line
Cinematic Arc	Broad swells and a wider range	Long lines and crescendos
Connected Legato	Restrained attacks and smoother motion	A connected legato line
Defined Detache	Clear pulses and firmer arrivals	An articulated rhythmic line
Intimate Chamber	A softer level and smaller gestures	Small ensembles and quiet passages

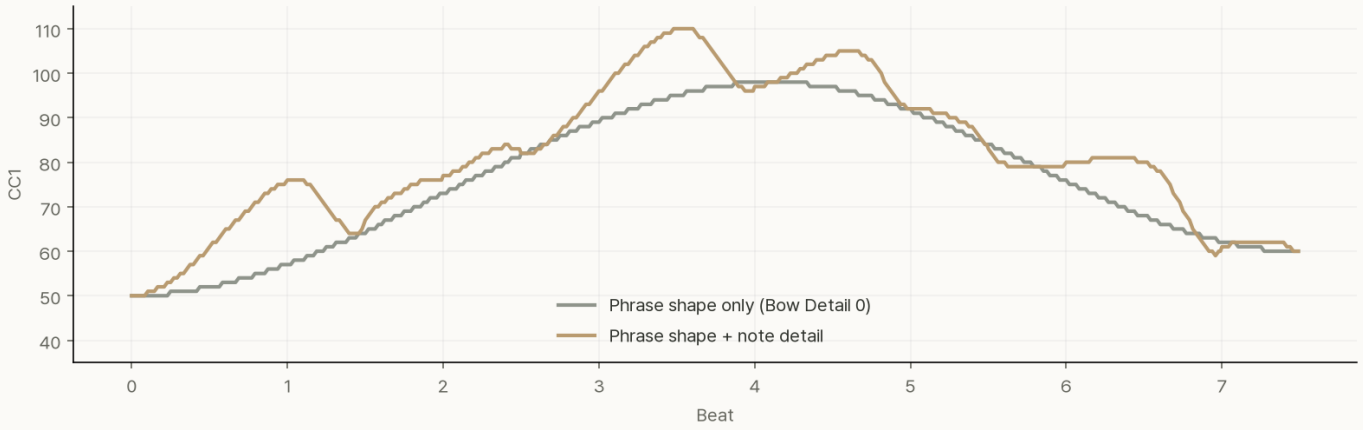
These curves use the same 100 BPM guide MIDI. Their sound depends on the instrument layers and mapping. Presets do not switch articulation patches or keyswitches.

Manual phrase shapes and individual phrase styles are retained. To compare a preset without a manual shape constraint, use AUTO SHAPE on that phrase and select Global for its phrase style.

Keep note life inside the phrase

Phrase Style sets the character. Start / Peak / End sets the broad shape. Bow Detail remains an independent layer, so editing either the style or the shape does not replace every note with one smooth arc.

With a manual shape, its explicit CC anchors take precedence over the broad automatic intensity/flow. Use AUTO SHAPE to return to automatic development.



Action	What changes
Phrase Style	Choose Global, Natural or Expressive for the selected phrase. Global follows the overall character. The curve updates immediately.
Start / Peak / End	Change any of the three CC anchors; it applies automatically. The anchors are respected within the allowed CC range, while the note-detail layer remains.
Peak Pos / Climax	Set the peak location. An explicitly selected climax note takes precedence. Climax notes are never chosen automatically.
AUTO SHAPE	Clear the manual broad shape and climax. Phrase boundaries, the individual style and accent choices are kept.

The example compares Bow Detail 0 and 65 on the same manual shape. Peak is a broad-shape anchor; local note gestures can rise above it. MAXIMUM is the hard ceiling. At either CC limit, details can be clipped.

Bow, attack and note duration

Open DETAIL only when you need it. First choose a preset and set the three main knobs, then change one control at a time; the curve updates automatically.

Control	What it does / when to use it
BOW CHANGE	Size of the bow gesture. Lower it for less pulsing; raise it for a clearer bow shape.
NOTE ATTACK	Controls the arrival within a note and the phrase-entry response. Higher values give a faster, firmer arrival.
NOTE RELEASE	Controls settling at a phrase ending. Zero disables the automatic ending fade. A manual Start/Peak/End shape takes precedence.
GLOBAL BOW STYLE / AUTO BOW	Chooses Natural, Legato or Detache controller gestures. AUTO BOW can select a legato gesture for connected notes.
SELECTED NOTE BOW	Select a note, then apply a bow style. A manual choice overrides automatic detection for that note.
LONG NOTE SWELL	Size of the swell inside a held note. This is separate from short-note protection.

Control	What it does / when to use it
SHORT NOTE PROTECTION	Restrains large gestures on fast short notes. Lower it when short notes need more explicit movement.
MELODY RESPONSE	Response to nearby pitch and relative velocity. This is a musical heuristic, rather than an AI interpretation of harmony or intent.

Bow style names describe controller gestures. They do not select the instrument library's legato or staccato patch.

Intensity, accent and depth

Control	The useful distinction
EXPRESSION INTENSITY	Scales overall response inside the CC limits. It does not rewrite note velocity.
MINIMUM / MAXIMUM	Allowed range of generated CC. A high minimum limits soft expression; a low maximum restricts larger gestures.
AUTO ACCENT	Small emphasis at note arrivals, informed by velocity and leaps. Intensity is global; accent is local.
ACCENT WEIGHT	Manual accent weight for the selected note. Zero suppresses its automatic accent, while other bow expression remains.
HUMANIZE	Small, repeatable variation. Moving a region alone does not randomise the result.
PHRASE CONTRAST / BOW DEFINITION	Contrast in broad development / definition of bow gestures. These interact with Bow Detail; avoid raising every related control at once.
BOW TIMING / ANTICIPATION	Arrival timing within a note / a small anticipatory shift of that arrival.
TIMING DETAIL / TRANSITION SMOOTHING	Strength of timing refinements / light smoothing of automatic transitions. These do not replace the note-detail layer with a broad arc.
CC SMOOTHING	Smooths automatic transitions and note details within a manual shape. Range 0-4; high values can soften small attacks.
REPEATED NOTE VARIATION	Restrains exaggerated bow gestures on successive repeated pitches.

Ask one question at a time

Too exaggerated overall? Lower Depth. Too much movement on individual notes? Lower Bow Detail. Just one arrival too strong? Adjust Automatic Accent or that note's manual accent.

Hand MIDI back to Logic

DRAG MIDI can start during playback. Finish Capture first. Whether the host accepts a drop during playback depends on the DAW. The selected part's notes and CC create a new region. Mute the original and bypass CCurve on the destination to avoid applying expression twice.

SETTINGS > MIDI drag start	Where to drop
Source start	Drop at the cumulative beat shown when hovering over DRAG MIDI. Its whole-quarter-note anchor preserves fractional timing and leading rests inside the file.
First note	Where the first note should sound. Leading rests are trimmed.
Project start	At the project beginning. The file includes the current placement offset.

Example: capture starts at bar 9 beat 1 in 4/4, and the first note arrives 2.5 beats later. The default file keeps that 2.5-beat lead-in. Drop it at bar 9 beat 1 to preserve the entrance.

Playback defaults to fixed project positions. Align or recapture after moving a DAW region. Optional single-capture Follow Notes can mistake similar notes in another region for a moved source. Check final placement and DAW snap settings.

To record the output of an existing region

On a receiving software-instrument track, choose the source under Internal MIDI In > Instrument Input and record the internal input. For live keyboard input, use Record MIDI to Track Here on the source and MIDI to Track on the receiver. Availability and labels depend on the Logic version.

Apple: internal MIDI routing

Work across separate instrument tracks

For separate Vn1 / Vn2 / Vla / Vc instrument tracks, put one CCurve instance in each MIDI path. A single audio-bus plug-in does not receive the original MIDI from all those tracks.

Track	MIDI path	Link
Vn1	CCurve -> Violin 1	Session 1 / Group A
Vn2	CCurve -> Violin 2	Session 1 / Group A
Vla	CCurve -> Viola	Session 1 / Group A
Vc	CCurve -> Cello	Session 1 / Group A

1. Use the same session name and group on all instances. Check each part's profile and output CC.
2. Confirm every required part appears in ENSEMBLE.
3. While stopped, arm Capture All. Gold pulses while waiting and red while recording.
4. Play all source regions together once, then stop.
5. Generate All, or select individual parts for editing.
6. Export All creates a multitrack MIDI file while retaining relative part placement.

Only discovered instances can be controlled together

Discovery works within one host process. Plug-in isolation in the DAW can prevent instances from seeing each other. Check the list first; capture any undiscovered track individually.

Kontakt Multi and other DAWs

Kontakt Multi

Use a distinct MIDI channel per part in a Kontakt Multi. Select parts in CCurve's Kontakt Multi mode to edit their curves. Voices sharing one channel also share its CC stream. Drag exports the selected part; Export All includes multiple parts.

Example	Channel	Instrument part
Vn1	1	Violin 1
Vn2	2	Violin 2
Vla	3	Viola
Vc	4	Cello

The VST3 routing model

Source MIDI -> CCurve instrument track -> CCurve MIDI output -> separate string-instrument track. CCurve's own audio output is silent. Load it from the host's instrument list, rather than a regular Cubase MIDI Insert or Audio FX slot.

Ableton Live

On the receiving track, choose the CCurve track in MIDI From and its plug-in output below, then set Monitor to In. Live's internal track routing merges MIDI channels, so start with a separate track pair for each part.

Ableton: accessing VST MIDI output

In Cubase, route the CCurve MIDI output to the receiving instrument track's MIDI input. Confirm output availability and menu labels in your host version. Check the routing in your own host version; supported formats do not imply testing of every version combination.

Shortcuts and mouse actions

Action	Mac	Windows
Undo	Cmd + Z	Ctrl + Z
Redo	Cmd + Shift + Z	Ctrl + Shift + Z
Alternate redo	Not assigned	Ctrl + Y

Click a phrase interval in the note or CC area to select it. Edit history belongs to the plug-in instance and is kept when its window is reopened. Each part keeps its own undo/redo history across part changes. Importing or capturing a new MIDI source starts a new edit history.

Click inside the plug-in to give it keyboard focus. Capture buttons do not take keyboard focus or consume Space/Return. Editing shortcuts are wired across the editor, including controls outside the piano roll. If the host intercepts a key, check plug-in focus and the host's keyboard-forwarding settings.

While typing in a text or numeric field, that field's own undo takes priority. CCurve history covers curve, note and phrase edits. It is separate from DAW-wide undo and does not restore every global knob value.

Zoom/navigation: TIME +/- or Cmd/Ctrl+wheel zooms time; NOTES +/- or Shift+wheel changes note height. Pan with the scrollbars or middle-button drag. FIT restores all. Viewing changes do not alter MIDI or its drag origin.

Mouse action	Result
Click a note	Select the note for editing. The original Logic region is not directly rewritten.
Preview the CC curve	The CC lane is a preview; mouse gestures do not edit points.
Knobs, faders and phrase controls	Controls update the curve automatically. Main macro controls appear only on Performance.
Edit CC in your DAW	Drag MIDI into your DAW, then edit the CC there.
Drag / click DRAG MIDI	Hand off a new region / open the traditional MIDI save dialog.

Match another instrument library

Choosing CC1 or CC11 does not remap the instrument. First confirm which controller actually drives dynamics or layer crossfade in that library.

Choice	Check this
CC1	Use it for your Chris Hein X-Fade assignment. Another library may use it for modulation or vibrato instead.
CC11	Use it where the instrument maps it to expression. Layer dynamics may still use another controller.
Instrument profile	Choose Violin 1/2, Viola or Cello as appropriate. Auto estimates from the name and register.
Keep written CC	When enabled in SETTINGS, the selected written controller is retained except inside explicitly edited phrases. Disable it to compare newly generated styles without the old controller constraining the result.

Notes and velocity

Generation retains note timing, pitch and velocity. Explicit note edits enable Play Edited Notes and affect plug-in playback; MIDI handoff is still needed to replace the source DAW region. In crossfade patches, low velocity need not imply a low sustained dynamic level.

One output controller is generated at a time. Separate automatic curves for dynamics, expression and vibrato are not part of this version.

A useful troubleshooting order

Symptom	First check
No audible change	Check output CC, the library mapping, Generated Output, Manual Override and the selected part. Check Keep written CC and Manual Override if an automatic control seems ineffective.
Style seems unchanged	Check Keep written CC and any manual shape or individual phrase-style constraint. Use AUTO SHAPE and Global when appropriate.
Note detail is weak	Check Bow Detail and clipping at the CC limits. Fast short notes deliberately receive less exaggerated movement.
Pumping on fast notes	Lower Bow Detail or Bow Change and raise Short Note Protection. Compare Connected Legato before Defined Detache.
After moving a region	Play the relocated source once. For ambiguous repeats, stop, put the playhead at the first note and use alignment in Timeline mode.
Dragged region doubles or starts late	Mute the original and bypass destination CCurve. Check the lead-in difference between Source start and First note, plus the drop position and snap.
Some linked tracks are missing	Check the session name, group and ENSEMBLE list. If host isolation prevents discovery, capture that track separately.

Settings, updates and limits

New defaults and saved projects

New 1.5 instances and Natural Ensemble start at Phrase Flow 100, Expression Depth 35 and Bow Detail 65. Loading an existing project preserves its saved values and curves.

CCurve now uses one expression engine. Classic selection and A/B comparison have been removed. Existing projects retain their stored curves; Changing expression values applies the current engine automatically. Intensity and Minimum/Maximum are available on the main screen only.

Where the guides are installed

Mac: the Guides folder under Application Support / CCurve as shown by the installer
Windows: Program Files / CCurve / Guides
The plug-in's ? menu opens the Korean or English edition.

Output control	Purpose
Generated Output	Enables playback of generated CC.
Manual Override / Value	For live preview, a fixed manual CC value takes priority over the curve. MIDI exports use the generated curve. Turn it off to hear generated expression.

Make a fair comparison

Compare one version at a time using the same MIDI, patch, tempo and mixer settings. Change one control, then listen separately to strong arrivals, held notes and endings. Numerical similarity between CC curves is not a musical-quality score.

Check your actual working environment

Notes alone do not fully specify harmony or phrasing intent. Evaluate drop placement, keyboard focus, routing and expression in your actual DAW and instrument. The Mac installer is Developer ID signed and notarized as Sungwon Lee. The Windows installer is signed as Daily Idea Co., Ltd. The PDFs contain no personal reference MIDI or audio.

Choose the family and instrument

Choose FAMILY in the header, then the instrument in the source column. This changes CCurve response rules and UI terminology. It does not load a sound or switch a patch in your DAW.

Family	Instrument choices	Main detail label
Strings	Violin 1 / 2, Viola, Cello, Auto	Bow Detail
Woodwinds	Flute, Oboe, Clarinet, Bassoon, Piccolo, English Horn, Bass Clarinet, Contrabassoon, Auto	Breath Detail
Brass	Horn, Trumpet, Trombone, Bass Trombone, Tuba, Auto	Articulation Detail
Other sustained	A neutral profile for other sustained sounds	Note Detail

Auto is a name-based estimate

String Auto uses the track name and register. Woodwind/Brass Auto looks for a recognised instrument name; otherwise it uses the general family response. Pick a named instrument to avoid relying on an estimate. Some instruments share a response group; these are not individually trained models.

Choose separately for each part

Use one choice per instance on separate tracks, or per selected part in Kontakt Multi. Factory presets preserve the family, instrument and output CC. Independent curves require independent MIDI channels.

Different families, different responses

Family	Response emphasis	Preset examples
Strings	Retains the string response: bow gestures, connected notes and held-note development.	Natural Ensemble / Connected Legato / Defined Detache
Woodwinds	Reduces repeated attacks in connected lines and treats separated arrivals and breath endings differently.	Natural Breath / Slurred Line / Clear Tonguing
Brass	Separates tongued arrivals from sustained support, with different horn, trumpet and low-brass response.	Balanced Brass / Heroic Rise / Brass Chorale / Marcato Motion

These rules change the CC envelope. They do not select tongued/legato/staccato patches or insert breathing rests. Note timing and velocity remain unchanged unless you edit notes.

The library mapping comes first

For example, VSL Synchron Woodwinds uses CC1 dynamics for some long notes and velocity for staccatos. Spitfire also distinguishes CC1 dynamics from CC11 expression. A volume-only CC cannot be assumed to change sampled timbre layers.

VSL Synchron Woodwinds

Spitfire: Dynamics, Vibrato and Expression

Edit notes directly in the piano roll

Gesture	Result
Drag the note body	Move timing horizontally and pitch vertically.
Drag either note edge	Resize the start or end of the note.
Double-click empty space	Draw a note at the selected grid position.
Shift + click / drag empty space	Add/remove notes from selection, or select with a box.
Alt + drag	Duplicate selected notes.
Delete / Backspace	Delete selected notes. A deliberately empty part remains editable.
VEL	Change selected-note velocity; with no selection it sets the drawing default, separately from fixed output CC.
Arrow keys	Left/right nudges by the grid; up/down transposes by a semitone. Shift+up/down uses octaves.
Command/Ctrl + drag	Temporarily bypass snapping.
Escape / Cmd/Ctrl + Z	Cancel a current drag; completed gestures undo as one edit.

The original Logic region is not rewritten. Play Edited Notes replaces its note stream at the plug-in output. Drag MIDI to create a new edited region and mute the original. Group movement, resizing and VEL affect selected notes together. Select a single note for per-note accents or articulation. Increase NOTES zoom for taller note rows.

Live updates and control priority

Expression values update automatically. Rapid changes are coalesced briefly; note drags finish before pending recalculation. GENERATE remains available as an explicit rebuild.

Setting	Priority and interaction
Manual Override	Sends a fixed CC instead of the curve. The value fader is disabled while off. Applying a phrase edit or GENERATE returns to generated output.
Keep written CC	Locks automatic expression to the written CC, except in explicitly edited phrases. Turn it off for newly generated expression after moving note timing.
Start / Peak / End	Applies within the main CC limits. Explicit anchors take priority over broad automatic intensity/flow while retaining note detail.
Peak Position / Climax	The last explicit position edit wins. At shared manual boundaries, the previous end applies just before the next start. Automatic analysis does not designate a climax.
AUTO SHAPE	Clears explicit broad anchors and returns to automatic development.

Changing family or preset retains your manual phrase anchors. Use AUTO SHAPE before comparing presets on the same MIDI and patch. Pending changes are also considered before MIDI handoff, part switching and saving.

Reference material and evaluation limits

Instrument metadata and the official MID-FiLD train/test split remain separate. Strings, woodwinds and brass are analysed individually rather than averaged into one CC target. Descriptive training-split analysis is separate from held-out safety evaluation.

This engine uses documented response rules informed by reference analysis. It is not a trained neural-weight model. Coverage differs by instrument, and libraries, patches and articulations still differ. Numerical curve similarity is not a guarantee of musical performance quality.

Source	Use
MID-FiLD	Writer-authored CC1 MIDI and instrument metadata; held-out files are not used for parameter fitting.
VSL Academy	Flute articulation/connection and horn characteristics are read as instrument-specific guidance.
VSL / EastWest / Spitfire	Controller/velocity roles and patch-specific exceptions.

MID-FiLD paper / AAAI

MID-FiLD official dataset

VSL Academy: Concert Flute

VSL Academy: Horn

EastWest Hollywood Orchestral Woodwinds manual

Personal references and the public source MIDI corpus are excluded from installers. Validate listening, routing and drop placement in actual Logic/Cubase/Live sessions with your instrument. The Mac distribution is signed and notarized; the Windows installer has a publisher signature.

Edit every part from one window

Give each participating CCurve instance the same session name and group. Open ENSEMBLE in any instance to see the linked parts. Kontakt Multi exposes one row per channel part. Scroll longer lists.

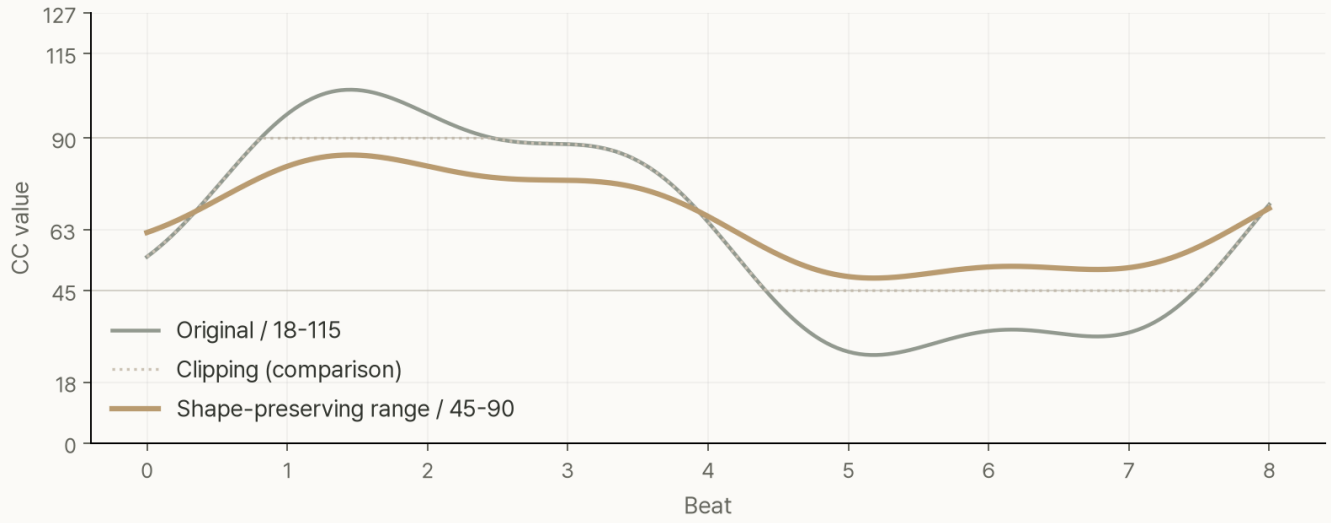
Task	Action
Edit another part	Select a row and choose Edit Part, or double-click it. Its piano roll and expression controls open inside the same window.
Return to the list	Choose Back to Ensemble. Editing a remote part does not change the owner instance's settings.
Rename	Choose Rename for the selected row. This changes the CCurve label and exported MIDI name, not the host DAW track name.
Reorder	Use Move Up / Move Down. Export All follows this order; the order is stored with the project.

Drag all parts together

Drag DRAG ALL MIDI to Logic to hand off one multi-track MIDI file, retaining leading rests and relative part timing. Logic may ask how to create or import multiple tracks. Click the button to save the file instead.

Linked editing operates between instances in the same host process. It does not provide networking across DAWs or isolated host processes. Finish Capture before editing or reordering parts and before handoff. Use Capture All in Ensemble to capture the real tracks while a remote editor is open.

Change the range without clipping



Raising Minimum or lowering Maximum scales and shifts the complete curve into the new range. It does not flatten the top or bottom by clipping. Relative phrase anchors and note gestures move together.

The old configured range maps to the new one. Written CC outside the old range is included in the input domain to preserve its shape. MIDI CC uses integers from 0 to 127, so a narrow range can merge small differences into the same value.

Small oscillations and point density

Automatic curves use continuous context and humanization, reject small reversals at integer boundaries, and schedule integer CC changes from the continuous curve, avoiding repeated rounding plateaus while preserving genuine holds. Point density alone is not a reason to erase note attacks. Authored CC remains intact except when you explicitly remap its range or edit a phrase.

Hear the notes you edit

Editing pitch, start, length or velocity enables Play Edited Notes. The DAW region stays unchanged while CCurve sends the edited notes at its output, replacing that part's source note stream to avoid double playback.

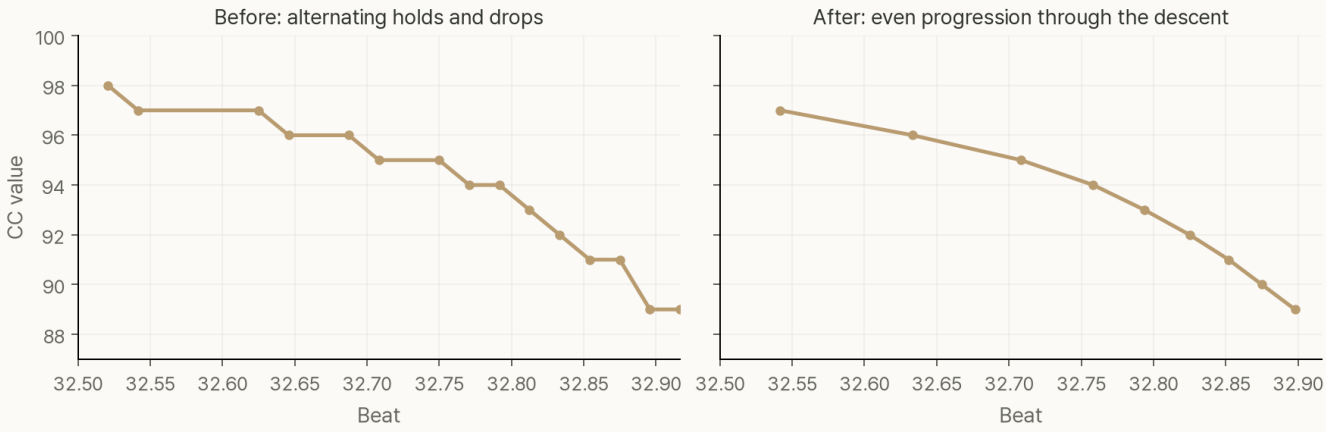
Situation	Behaviour
Turn playback off	Returns to the source notes while keeping the current expression curve and settings.
Resize / delete all	Plays the edited durations. A part with all notes deleted is silent during edited playback; Undo restores it.
Live edit / stop	Releases the old edited voice and chases the new one. Transport stops and jumps release pending edited voices.
Follow source timing	Play the source region from the start to establish alignment. Unmatched sections pass source notes through. A note moved before the first source onset may need timeline mode or MIDI handoff to hear its earlier entry.

If a long low note appears

A low note can be an instrument keyswitch or articulation command. CCurve does not add a dummy C0 note as a position marker and does not automatically remove legitimate keyswitches. Compare original/exported note counts, pitches and timing. If it occurs only with one library, also inspect its articulation and MIDI output/recording route.

The plug-in output changes what you hear. To replace the actual Logic region, drag MIDI, mute the source and bypass CCurve on the destination to prevent double processing.

Even controller ramps



The left example alternates short holds with drops. The right shows the same generated passage with the new renderer. This is an excerpt from a synthetic MIDI example, not the original MIDI behind the supplied screenshots or an instrument recording.

Timing matters more than point count

Rounding at a fixed time grid creates repeated values even on a smooth ramp. CCurve 1.7.5 computes when the continuous curve crosses each integer CC level. It avoids artificial hold/drop patterns while retaining real holds and meaningful attacks. Generated curves use the same approach after range changes.

Use it in an existing project

Saved curves are not silently rewritten. Press Generate once in an existing session to calculate a new curve. Keep written CC preserves an authored curve and does not automatically smooth the source CC.

MIDI CC uses integer values from 0 to 127. It is not a high-resolution audio envelope; the instrument response and internal interpolation also matter. Compare both versions with the same patch and region to judge audible stability.

Saved captures and keyswitches

Capturing region 2 after region 1 retains earlier notes, CC and settings. Playback chooses the capture at the project position. Select which capture to edit above the piano roll.

Item	Behaviour
Overlaps	The latest capture wins overlapping time. Selecting an older capture for editing does not change that priority.
Position and moves	Multiple captures use fixed positions. Menu values are cumulative quarter-note beats (first beat=1), not bars. Align or recapture after moving a DAW region.
Edit and export	Undo/Redo stays with each capture while the instance remains open. MIDI drag exports the selected capture; Import MIDI replaces the selected source.

Item	Behaviour
Save and limits	Up to 32 previous captures plus the current capture; archived state is limited to 48MiB. Do not overwrite new multi-capture projects with an older CCurve. Previously overwritten captures must be captured again.

Match keyswitches to the patch

In Settings > Keyswitch note range, use the keyboard or note-name lists. Middle C display can be C3/C4/C5 without changing actual MIDI 0-127. Exclusion is off by default. Those notes are excluded only from expression analysis and retained for playback/export. Mappings vary by library and patch.

In Ensemble, click a row once, then open Performance or Detail. Their source selector also switches parts. Session names identify the linked group; renaming updates linked members together.

Activate after installation

Save and fully quit the DAW before installation. Open the activation button below the CCurve logo at the top left and enter the issued key starting with CCURVE-. A SHA-256 file checksum is not a licence key.

Item	Guidance
Internet	Initial activation and device changes require Internet. Normal work can be offline after successful activation.
Seat	One user and one active computer. Deactivate the old computer before changing machines. Contact support with the order ID if it is unavailable.
Unactivated	Existing projects can play. New CC generation, editing and export require activation.
Update / removal	The removal function targets CCurve-installed files and preserves projects and licence data. It does not uninstall third-party instruments or libraries.

Some legacy folder or image labels may still say Beta2 or RC5. The released feature version is 1.7.7; follow this chapter for current installation and activation.

Support: ccurvesupport@gmail.com / https://ccurveaudio.com/downloads.html

Apply settings across parts

Select multiple Ensemble parts with Cmd/Ctrl or Shift click, then open batch settings. Performance and Detail also provide Apply to other parts, where you select targets and properties.

Apply only checked values, or copy the current part global expression settings. Copy-all does not copy notes, instrument choice, keyswitches, output routing, or individual note/phrase manual edits. Explicit checked values override the copied values.

Targets must share the session and linked group. Stop playback/capture/editing and capture/generate each target first. Choose either a preset or copy-all. Check Keep written CC for each target.

Selection limits are 16 parts, 200,000 notes in total and 32 MiB of source/region data. Invalid ranges, disconnected parts or stale selections are rejected.

Ensemble batch undo reverses the latest batch together. Later individual edits or connection changes can prevent undo to protect newer work. Batch undo history is not retained across DAW restarts.

Internal CC curves are previews rather than direct draggable point editors. Knobs, faders and expression settings still reshape them. Drag MIDI to the DAW for detailed CC editing.

Cmd/Ctrl+Z and Cmd/Ctrl+Shift+Z also work for Detail changes. A focused text field retains its own text undo.