High Definition Media Interfaces

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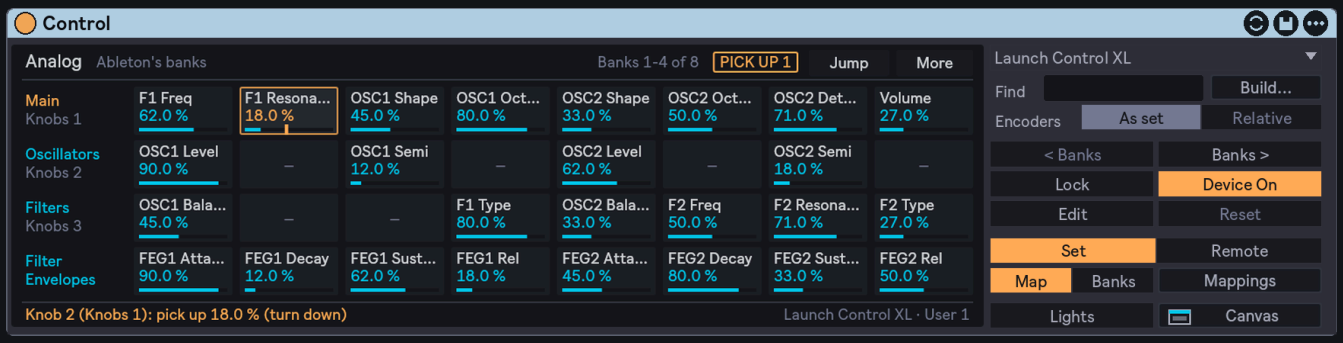
Control

USER MANUAL · MAX FOR LIVE MIDI EFFECT

Your MIDI controller on the device you select in Ableton Live 12: named banks, pickup, your own layouts and a labelled Canvas.



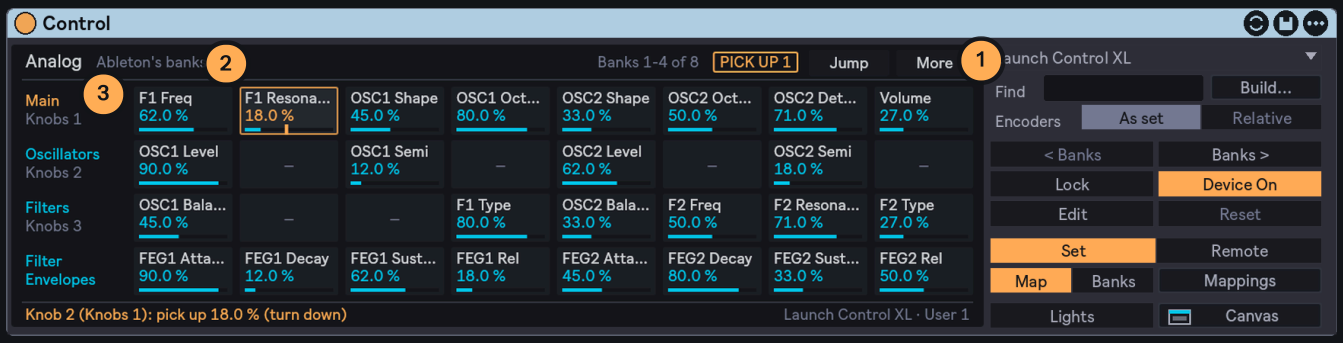
Pictures in this manual are computer-made drawings of the device, not screenshots from Live. Your Live theme, zoom and controller change how it looks. HDMI is not affiliated with the companies named in this manual. Their names are used only to say what works with the device. Support: support@hidef.tools

User manual for Control, a Max for Live MIDI effect for Ableton Live 12.

Control maps your MIDI controller to the devices in Live. In Device mode it follows the device you select in Live. Lock holds one device. Optional Master pages combine parameters from across your Set on one page, and Mixer makes pages for volume, pan and sends.

Connect and choose a view

1. Put Control on a MIDI track. Route MIDI From and MIDI To to your controller, set Monitor to In and turn Track on for both ports. Leave that controller out of Live's Control Surface assignments, so the two do not compete for the same input.
2. A new Control starts on Generic 8 knobs + 8 buttons. The Controller menu lists controllers by maker, then by name, so related models sit together (Launch Control, Launch Control XL and Launch Control XL 3 CC, for example). Choose your controller, or type a short name such as LCXL 3 into Find. Saved Sets keep their saved choice. Set Encoders to match your hardware (absolute or relative). Press Lights if your controller supports it.
3. Select a device. Its banks appear in Standard's compact Map and Banks display and on your controller. The Banks arrows change pages. Absolute knobs and faders wait until you reach the parameter's value (pickup). The status line tells you which way to turn.



Control on a Launch Control XL, with Analog selected in Live.

1. Choose your controller in the Controller menu, or type a short name into Find. Launch Control XL here.
2. Click a device in Live. Control shows its name and its banks.
3. Each row of the controller gets a bank. Analog's Main, Oscillators, Filters and Filter Envelopes sit on the XL's three knob rows and its faders.



The Canvas draws the same mapping on your controller.

4. The Canvas names the track and device it follows. It shows your controller with every parameter name and value in place.
5. A highlighted control is the one you just touched, or the one waiting to pick up.

Keep Control on its own MIDI track, with MIDI From set to your controller. That stops notes from a clip on the same track being mixed up with your controller's notes.

Control maps the messages that your controller's profile lists. Match the controller's port, channel, template and encoder mode to the setup in this manual. Messages the profile does not list pass through unchanged. Pitch bend, aftertouch and NRPN are not mapped.

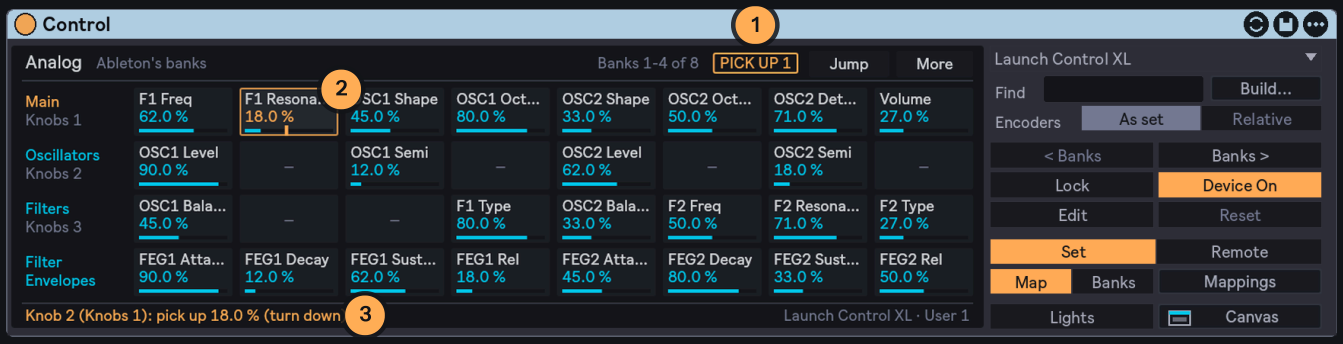
Lights sends button and ring colours to your controller again after you reconnect it. It does nothing for a controller whose profile has no light data, such as the Launch Control XL 3. MIDI To must point at the controller.

The three views

Standard is the compact device in Live. More > Map grid returns to the Map view.

Canvas is a separate pop-out window that draws your controller. It works in every mode. Size zooms it. Use 100% or larger to read parameter names, because the text is small at 50%. Float keeps it open when you change tracks. Follow shows it with Control's own track.

The compact Jump and More pages give you device, rack and chain navigation, presets and tools without opening the Canvas. More > Browse looks at controls with four direction buttons. Tiny fits all the physical controls into a small overview. Hover shows the full mapping. Browsing never writes anything.



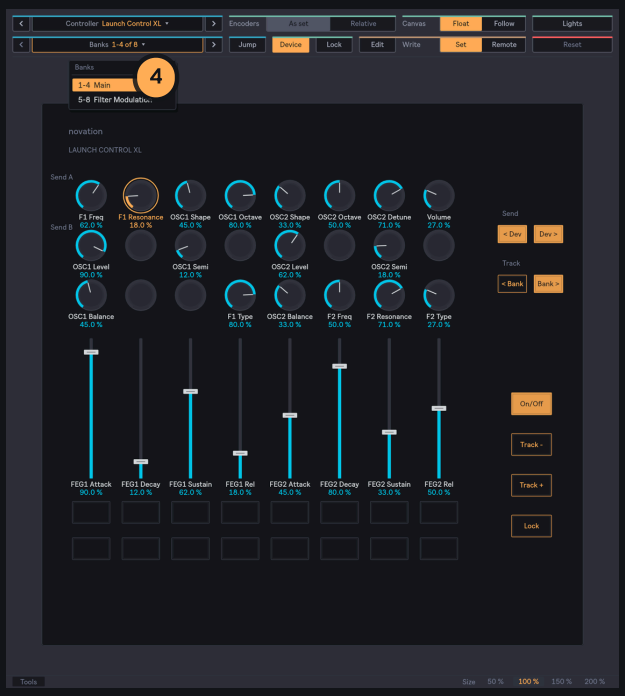
Pickup: Analog's F1 Resonance is at 18 %, and knob 2 of the first row is somewhere else.

1. PICK UP shows how many controls are waiting to catch up.
2. The waiting control is outlined in the compact view and ringed in the Canvas.
3. The status line says which way to turn: "pick up 18.0 % (turn down)". Once the knob passes 18 %, it moves the parameter.



Banks: more parameters on the same knobs. Analog has eight banks, and four are on the controller.

1. The Banks view lists every bank. The highlighted ones are on your controller now.
2. Banks 1-4 of 8: a controller with several rows shows several banks at once.
3. The Banks arrows move to the next group. Controllers with spare buttons can do the same from the hardware.



The Canvas bank menu.

4 The bank menu jumps straight to a group: 1-4 Main, 5-8 Filter Modulation.

Set up your controller

Each section below covers one controller. If yours is not here, choose its profile or use Build your own controller (later in this manual).

Launch Control XL 3

Choose Launch Control XL 3 CC. It follows a custom mode that you make in Novation Components, so it does not read the factory Mode 16.

1. In Components, make a custom mode in an empty slot from 1 to 15. Leave your other modes alone.
2. On the unit's Settings page, set the Global MIDI Channel to 16. In a custom mode, hold both Track buttons for about 300 ms to open Settings. If Components shows a MIDI channel for a control, set that to 16 too.
3. Set the 24 encoders to CC, Absolute, 0 to 127. The rows run CC 13 to 20, 21 to 28 and 29 to 36. Set the 8 faders to CC 5 to 12.
4. Set the 16 fader buttons (the two rows under the faders) to CC and Momentary. Number them 37 to 52, left to right, top row first.
5. Send the mode to the unit, then select it with Mode, the slot button, Mode.
6. Route the unit's MIDI port to Control, not its DAW port. If Live switches the unit to a DAW mode when it connects, set DAW Connection to Connect only on Novation's Settings page.

Control takes four buttons for itself. Button 1 is Device on/off, button 2 is Lock, button 15 is the previous bank and button 16 is the next bank. The other 12 pass their messages on to the track.

Control does not light the buttons or the encoder rings, so Lights does nothing here. Encoder Curve and Fader Pickup Type on the unit's Settings page apply to custom modes.

FLkey 2

Choose FLkey 2 encoders. It covers the 8 encoders on page 1 of an FLkey 2 or FLkey 2 Mini, set up in Novation Components. It does not read the pads, faders or buttons.

1. In Components, make a Custom mode for the FLkey 2. Leave your other modes alone.
2. Set encoders 1 to 8, in order, to CC, MIDI channel 1, 7 bit, Absolute. Number them CC 20 to 27 and give each the full range, 0 to 127.
3. Send the mode to the keyboard and select it.
4. Route the keyboard's MIDI port to Control.

You make this setup yourself. It is not a factory map. Novation's support article does not print the range numbers, so check on your unit that a full turn moves Control's knob from end to end.

Page 2 of the encoders, the pads and every light are not covered. The picture in Control shows the encoders as a plain row, because no source says how they sit on the unit.

FLpad

Choose FLpad fader widgets. It gives you 8 faders on the pad grid of an FLpad or FLpad Mini. These are Fader widgets on the pads, not hardware faders.

1. In Components, make a Custom mode for the FLpad. Leave your other modes alone.
2. Place 8 vertical Fader widgets in columns 1 to 8 of the 8 by 8 grid. Set each one to Unipolar, so it runs 0 to 127.
3. Give them CC 20 to 27, in order from column 1, on MIDI channel 1.
4. Send the mode to the pad controller and select it.
5. Route its MIDI port to Control.

You make this setup yourself. It is not a factory map. The rest of the grid and all pad lights are not covered.

Launch Control 3

Choose Launch Control 3. It covers the compact Launch Control 3 (16 encoders and 8 buttons), not the Launch Control XL 3. It uses the built-in Mode 8, which Novation fixes and which cannot be edited.

1. On the unit, press Mode, press the eighth button, then press Mode again. This selects Mode 8.
2. In Live, turn off Novation's own control surface script for this unit. Send the unit's MIDI port (not the DAW port) to the track that Control sits on. Turn Track and Remote on for that port.
3. Leave DAW mode off.

The 16 encoders send CC 13 to 28 on channel 16. They make two banks of 8, and the top row is the first bank. The 8 buttons send CC 37 to 44.

Control gives buttons 1, 2, 7 and 8 their jobs: On/Off, Lock, Bank back and Bank forward. Buttons 3 to 6 (CC 39 to 42) pass on to the track untouched.

The screen and every light are not covered. If a turn or a press behaves differently on your unit, tell us the channel and number it sends and we will ship a corrected profile.

Livid DS1

Choose DS1. It covers the Livid Instruments DS1 on its stock map, with all its controls on MIDI channel 1.

1. Send the DS1's MIDI port to the track that Control sits on. Turn Track and Remote on for that port. Keep the unit's own remote script off.
2. Choose the DS1 in Control. It starts on its first layout.

The DS1 has more knobs than Control can bank at once, so Control gives it two layouts of four rows.

LAYOUT	ROWS
1	Knob rows 1 to 3 across the eight channel strips, then the eight faders.
2	Knob rows 4 and 5, then the four side knobs and four encoders as one row, then the same faders.

Touch a control from the other layout and Control switches to it.

Control uses the first two buttons of strip 1 for On/Off (top) and Lock (lower). Bank back is note 21 and Bank forward is note 24. They are drawn as the two bottom-right buttons of the 3 x 3 grid. If your unit's grid runs the other way, go by the note numbers.

On layout 2, each of the four encoder pushes resets its encoder's parameter. Every other button, and the master fader, pass on to the track. Control does not drive the DS1's button lights.

The DS1's top-right encoder may send relative values if it was set that way in Livid's own software. Control reads all four encoders as absolute. If yours sends relative values, set Control's Encoders to Relative, or tell us and we will ship a profile for it.

Sets saved with an older profile

A Set that cannot move its mappings safely stays on the older profile and says so. The Standard view's status line then shows: "This Set uses the old Launch Control XL 3 layout. Choose Launch Control XL 3 CC to switch (mappings reset)."

Choosing the new profile resets that Set's mappings. Leave it as it is to keep them.

Operate or edit

With Edit off, you can do the following in the Canvas.

- Drag a knob or encoder vertically. Shift-drag for fine movement.
- Click or drag a fader along its horizontal or vertical track.
- Press and release a mapped button or pad.
- Use an encoder cap to run its mapped push.

Hardware and mouse use the same current target. Changing context cancels an unfinished gesture. The current value in a control's cell is the one to read, because the last-action value can show before a glide finishes.

Set mode creates Undo steps and lets Live record automation. Remote mode holds mapped Live parameters until you unmap them or return to Set. Master and Mixer pages use continuous controls. CC targets send MIDI in either write setting.

Turn Edit on to choose a slot. Then click a parameter in Live or use Pick. Drag controls to swap assignments or to fill an empty slot.

Move, in the Canvas footer, changes the physical positions instead. It works separately for each controller and template, and only in this Set. Turn it off to edit mappings. Reset beside Move restores the original positions. Custom layouts use their builder grid instead, so Move is off for them.

The device's mapping Reset returns to the default banks and behaviours. It keeps your saved presets.

Use Colour for individual buttons and pads. Hardware choices use the colours the controller supports. Choices it does not support are marked Canvas-only. Default restores the original colours.

Mappings > opens a collapsible readout of Map, Banks and Buttons, plus the assignment tools. It starts closed.



The Canvas with a button's behaviour card open (Step).

Button modes are Switch, Momentary, Step, Shape, Nav, Scene and Jump. Knob and fader modes are Normal, Step and Shape. Shape sets how deep the movement is on a continuous control. More adds extra shapes and lengths, free or tempo-synced, including triplet and dotted values and longer bars. To stop a looping button Shape, press the button again, or set the continuous Shape depth to zero.

Build your own controller

Choose Build... beside Find in Standard, or Canvas > Tools > Build your own.... Add knobs, encoders, vertical or horizontal faders, buttons or pads by quantity, then drag them on the 10, 20 or 40-unit snap grid.

Set labels, MIDI channel and input address. Continuous controls use CC. Buttons and pads use CC or Note. Relative encoders use binary offset (64 is neutral, 65 is up and 63 is down). Control refuses duplicate addresses.

Save keeps a named layout in this Live Set. New starts an empty draft. Load… recalls a saved layout. Done returns to the active custom Canvas. Choose a factory controller to go back to its profile.

The limits are 64 controls, 32 continuous controls and 16 saved layouts. Custom colours show in the Canvas only. Remote shares 32 unique target slots across continuous controls and assigned buttons. Control refuses extra targets and tells you. See Custom layouts at the end of this manual for mapping, state and input details.

Make pages across your Set

Master pages let you build your own pages from parameters across the Set.

Choose Master in the compact More page or in Canvas Tools, then New > Slots. Select a parameter in Live and choose Assign selected. The slot arrows reach all 32 slots. The named page arrows change pages. The Bank arrows change the group of slots that fits your hardware. Rename uses Return to save and Escape to cancel.

A Set holds up to 16 named manual pages of 32 slots. They stay with this Set. If a target has moved or been replaced, it stays unavailable until you assign it again.

Choose Mixer for generated Volume, Pan and named Send pages. Track and return names and structure refresh while Mixer is active, and Refresh tries again. You cannot edit generated pages by hand.

Choose Device to release these bindings and return to the selected device.

A manual Master slot can send MIDI CC instead. Edit Channel, CC, Min, Max and Label. Shift changes CC, Min and Max by ten. A Min above Max reverses the range. Controls you operate send to this track's MIDI To.

Control ignores MIDI that comes straight back with the same bytes for 150 ms. A genuine identical message in that window can be ignored too. While Master or Mixer is active, CC light and ring feedback stops at the output addresses of your manual pages. Device mode resumes normal feedback on the same output, so choose your routing and addresses with that in mind.

Master pages, at the end of this manual, explains how targets are saved, pickup and CC behaviour.

Which device Control follows

Control follows the device you select in Live. Click a device's title bar and Control shows its banks.

If a Control Surface script has appointed a device for hardware control, Control follows that device instead. Many scripts appoint the device you select, so the two are often the same.

You do not need a Control Surface script, and there is nothing extra to install.

Live's Remote switch on a MIDI port is a separate setting. A Max for Live device cannot change it, and Control does not need it to follow a device.

The device you select

Click a device's title bar. That device is selected on its track. With no Control Surface script, Control follows it.

A script's choice

A Control Surface script, such as one for a Push or a Launchkey, can appoint a device for hardware control. If one does, Control follows that device. Many scripts appoint the device you select.

What you need

Nothing extra to install, and no script required. Lock holds the current device while you select others.

If a locked device moves to another chain, lock it again. Two devices cannot both hold the same parameter in Remote mode. Use Set mode on one of them.

Use Control with OSControl

Control follows one device at a time. To get the same 16 dials on each track, put one OSControl on each track.

1. Put an OSControl at the end of each track's chain. Map its 16 dials in OSControl, with a dial's Map button or in the Canvas's Dials, Browse or Follow tab.
2. Select that OSControl, by clicking it or with Control's Jump, which lists it. Control puts your controller on its dials.
3. Control shows OSControl's own dial names (Predelay, Send A and so on) instead of Dial 1 to Dial 16. If you rename a dial in OSControl, Control shows the new name within a second. An older copy of OSControl shows Dial 1 to Dial 16, so use the latest OSControl download.

On a Launch Control 3, encoders 1 to 8 are Dials 1 to 8 and encoders 9 to 16 are Dials 9 to 16. Absolute knobs use pickup, so they take over when they reach the dial's value and nothing jumps.

After the dials, the controller pages hold OSControl's modulator settings, in this order.

PAGES	SETTINGS
Mod 1 to 8	Rate, Amount and On
One-shot settings for each modulator	Attack, Hold, Decay, Sustain, Release, Threshold, Re-arm and Note
Mod Tilt	Last

Set mode writes can be undone. Remote is smooth but is not recorded. If OSControl is moving a parameter with its own Remote mode, Control leaves that parameter alone and says so in the status line. Do not point both devices' Remote at the same parameter.

Control changes the selected device only when you use Jump, Nav or the rack buttons. OSControl's Follow follows those changes. A copied OSControl still points at the original track's parameters, so map each track's OSControl on its own track.



OSControl with dials named Cutoff, Space, Punch, Tone, Tail, Ratio, Ceiling and Pads (top), and Control on a Launch Control XL with that OSControl selected: compact view and Canvas.

1. OSControl's own dial names.
2. Control shows them in place of Dial 1 to Dial 16.
3. Absolute knobs pick up, so nothing jumps.
4. The Canvas shows the same names on your controller.

Use Control with Extraction and Extracted

Extraction and Extracted are audio effects. They turn audio into editable MIDI notes and write those notes into clips. They do not take MIDI and send none on the track. Control can still drive their settings.

DEVICE	BANKS, IN ORDER
Extraction	Detect (Note Sensitivity, Split Sensitivity, Minimum Note Duration), then Timing (Quantize Strength, Time Grid, Key Snap Strength, Scale Key, Scale Name), then More 1 (Auto print, Add instruments, Layout mode).
Extracted	Main (Hit sensitivity, Quantise strength, Swing, Velocity scale, Grid, Output mode and, on the eighth control, Add instruments; the seventh is empty), then More 1 with its eight drum lanes, then More 2 with Auto print.

Capture and Print are buttons on each device's own face, not Live parameters, so a controller cannot press them. Auto print and Add instruments are Live parameters, so a controller can switch them.

Control cannot tell a clip's notes from your controller's notes. A clip playing on Control's track can lose notes if Control uses those notes. For example, Control uses DS1 notes 0, 1, 21 and 24 to 28 on channel 1. Neither the DS1 nor the Launch Control 3 takes Extracted's drum notes 36 to 75.

If your controller does something else

If a controller does not behave as this manual says, send us:

1. The controller's name and firmware.
2. For each control that does the wrong thing, the MIDI channel and the CC or note number it sends. A MIDI monitor shows this, or you can send a photo of the maker's map.

We will ship a corrected profile in a new copy of the device. It keeps the same menu position, so a Set saved with that profile still finds it. Meanwhile, Build your own controller can map your controller.

Support: support@hidef.tools

Keep your setup safe

Update Control

To update Control, replace every copy of the old device file with the new one. That includes copies collected into Project folders. Use the same file name in the same place (`Control - hidef.tools by hosting.amxd`, as it comes from the store).

Your Sets point at that file, so they open with the updated device and keep their controller, banks, buttons, behaviours, presets, Master pages and settings. Presets you saved for a device type stay in Control's shared file and work with every copy.

Keep a backup copy of your Set before you update.

Share a mapping

Share's Copy text puts the mapping's text on the clipboard, ready to paste into an email or message. It uses your computer's own clipboard tool (pbcopy on a Mac, clip on Windows). If Control cannot reach the clipboard, use Save file and attach the file.

Presets

Device-type presets keep custom banks and the behaviours of buttons and slots. They are saved per device type.

- Save adds a preset. Names can be up to 24 characters.
- Click a preset's name to load it.
- Rename lets you type a new name. Return saves and Escape cancels.
- Over replaces a preset. Del removes it.

A behaviour preset does not recall individual hardware colours.

The Set keeps these even if Control cannot write the shared file. Once a shared save works, other Sets can use them.

The shared file

Control keeps shared mappings, presets and colours in one file. It looks for the file in this order: your Music folder, a shared location, Max's user home, then the folder beside the device. The order is the same on Windows, so files saved there by earlier copies of Control stay readable. Master pages never go into the shared file.

If the file cannot be written, your changes stay in the Set. Choose Canvas > Tools > Retry shared save to try again.

If two copies of Control edit the same entry, Control offers Keep local or Reload shared. Keep local overwrites the entries in conflict and never overwrites a newer revision you have not seen. Reload shared replaces shared mappings, presets and colours. It keeps the Set-only Master pages and physical layouts.

Keep backups of important Sets and exported mappings.

Notices

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Support: support@hidef.tools

Build your own controller

Choose Build... beside Find in Standard, or Canvas > Tools > Build your own.... The editor opens in the Canvas. The normal Standard parameter display keeps its usual layout.

1. Choose Knob, Encoder, V fader, H fader, Button or Pad. Set the quantity and press Add. A layout can hold up to 64 controls, including up to 32 knobs, encoders and faders. If an addition does not fit, Control refuses all of it.
2. Drag a control on the grid. Snap lines up the movement. Choose a 10, 20 or 40-unit grid. The selected control also has position buttons. Delete control removes it.
3. Click a control's label to rename it. Return accepts the text and Escape cancels. Set its MIDI channel and address. Continuous controls use CC. Buttons and pads can use CC or Note. Every positive value presses, and zero or Note Off releases. Control refuses duplicate input addresses.
4. For an encoder, choose Absolute or Relative. Relative uses binary-offset messages: 64 is neutral, 65 moves up and 63 moves down. Match this to your hardware.
5. Click the layout name to rename it, then press Save. New starts an empty layout, so save first to keep the current one. Load... selects a saved layout. A Set holds up to 16 saved layouts. Load one and press Save to update it. Layouts stay in the Set. There is no export or import between Sets and no shared layout library.
6. Press Done to return to the physical Canvas. The custom layout stays active. Select a factory controller to return to that hardware profile. Build reopens your custom draft.

Your controls use the normal device mapping and input paths. Choose a Live device to control it. Use Edit and Pick for button and pad assignments, and the usual bank tools for custom assignments.

Opening the editor, adding controls or arranging them does not send a parameter value.

Existing mappings belong to this custom layout and device type. If you remove earlier controls, a control that stays keeps its own assignment. A control you bring back is left unassigned. It does not take over another control's target.

A saved layout holds geometry, labels and MIDI inputs. It does not hold an automation snapshot. Current mappings, behaviours and colours stay in the Set beside the layout.

Custom control colours show in the Canvas only. Control cannot guess a light protocol for an arbitrary MIDI address, so custom layouts have no hardware light feedback. Use the builder to move custom controls. The factory Edit > Move tool is off for them.

Set and Remote keep their usual meaning. Remote can hold 32 unique mapped targets, shared by continuous controls and assigned buttons. Control refuses an extra target and tells you. It never writes a hidden change to the Set. Hardware MIDI uses this track's existing routing.

The builder does not add NRPN, pitch bend, aftertouch, another output port or MIDI Learn. It does not edit LFOs or draw animated waveforms, and it does not make a faceplate for a specific controller. Check your controller's real MIDI addresses before you rely on a custom layout.

Master pages

Device mode keeps the mapping for the selected device. Master and Mixer are optional modes. Choose the mode in the compact view's More page, or in the Canvas Tools menu. The Canvas keeps your controller's physical layout in every mode.

Master mode

Choose New to add a page, then Slots to open its editor. Select a parameter in Live, then choose Assign selected to put it on the slot shown. The slot arrows reach all 32 slots. Remove clears one slot.

Rename uses text entry: Return saves and Escape cancels. A Set saves up to 16 named manual pages. Page arrows choose a named page. Bank arrows show groups of slots that fit your controller's continuous controls.

Choose MIDI CC in a slot editor to send a controller number on a channel from 1 to 16 to this track's MIDI To. You can edit Channel, CC, Min, Max and Label. A Min above Max reverses the range.

A CC slot only sends when you operate its control. CC targets keep sending MIDI in both Set and Remote. Set and Remote only affect Live parameter targets. Control ignores recent output that comes straight back unchanged. An ordinary message at an output address Control has claimed still passes once, if it is not an assigned hardware input.

Mixer mode

Mixer builds separate Volume, Pan and named Send pages from your current tracks, returns and Master, where Live lets Control use an enabled parameter. It leaves your manual pages alone.

Track and return names and structure refresh while Mixer is active. Refresh also tries again after a fault or when the track list is unavailable. You cannot edit Mixer pages by hand. Control invents no send for Master, and it leaves out an ambiguous send list.

Pickup and moving between modes

Absolute knobs and faders use pickup for Live parameters each time you change page or target. Relative encoders start from the parameter's actual value. Mouse drags use the value shown, without physical pickup. CC targets send their set range straight away.

Device-only button actions are held back in Master and Mixer, so they cannot toggle the device you followed before. Returning to Device releases Master's Remote holds and CC sessions, then restores the normal device mapping.

While Control holds a parameter in Remote, Live greys out that parameter's own control. Control still lets you move between pages and refresh Mixer while it holds the parameter. It refuses a parameter that something else has disabled, that Control does not own, or that has changed. Releasing the hold gives the parameter back. Check Remote handoffs in Live when you change pages or refresh Mixer.

How targets are saved

A Set saves your manual pages, the selected mode and the selected page. Pages hold up to 32 slots, each a parameter, a CC or empty. Control never saves Live's internal ids, and never writes Master pages to the shared file of custom banks.

For each parameter, Control saves where it is (track, device and name) and which parameter it is. Mixer pages also save which property and send they use.

While a Set is running, moving or reordering devices does not break a page. When you open a Set, Control checks each saved target where it was saved. A target that is duplicated, missing, replaced or disabled stays unavailable. Control does not look for a replacement with the same name. Control refuses every Set and Remote write to an unavailable target.

The controller and the Canvas share the same current assignment. Changing pages cancels an unfinished gesture. Only the current named page follows parameter values. Device mode leaves Master output idle.